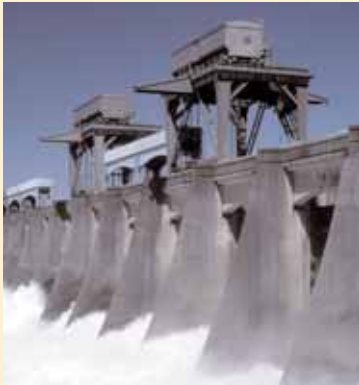




PERFORMANCE AND ACCOUNTABILITY REPORT



**3RD QUARTER
FISCAL YEAR 2006**

**DRAFT
8/31/06**

FOREWORD

The Reports Consolidation Act of 2000 authorizes Federal agencies to consolidate various reports in order to provide performance, financial and related information in a more meaningful and useful format. In accordance with the Act, the Department of Energy (Department or DOE) has produced its fiscal year 2006 Performance and Accountability Report (PAR) in the following reporting formats that will serve multiple audiences and users with varied levels of detail:

- The Performance and Accountability Report, as a full report that provides a thorough documentation of the stewardship of our mission-critical resources and services provided to the American people.
- The PAR Highlights, an executive summary version of the full report.
- The PAR CD, featuring a PDF version of the full report.
- The PAR internet website at www.cfo.doe.gov/progliaison/par2006.htm, featuring all PAR reporting formats.

All PAR reports are organized by the following four sections:

Management's Discussion and Analysis section provides executive-level information on the Department's history, mission, organization and performance highlights within our critical mission objectives, analysis of financial statements, systems, controls and legal compliance and other challenges facing the Department.

Performance Results section provides detailed information and an assessment of our progress on all of the Department's performance goals and targets for the past four years.

Financial Results section provides a Message from the Chief Financial Officer, the Department's consolidated and combined financial statements, and the Auditors' Report.

Other Accompanying Information section provides the Inspector General's and Performance Management Challenges, Improper Payments Information Act Reporting Details and other statutory reporting.

This report meets the following legislated reporting requirements:

- > **Department of Energy Organization Act of 1977** – requires an annual report on agency activities.
- > **Federal Managers' Financial Integrity Act (FMFIA) of 1982** – requires a report on the status of management controls and the most serious problems.
- > **Federal Financial Management Improvement Act (FFMIA) of 1996** – requires an assessment of the agency's financial systems for adherence to government-wide requirements.
- > **Inspector General (IG) Act of 1978 (Amended)** – requires information on management actions in response to Inspector General audits.
- > **Government Performance and Results Act (GPRA) of 1993** – requires performance results achieved against all agency goals established.
- > **Government Management Reform Act (GMRA) of 1994** – requires agency audited financial statements.
- > **Reports Consolidation Act of 2000** – requires the consolidated reporting of performance, financial and related information in a Performance and Accountability Report.
- > **Improper Payment Information Act (IPIA) of 2002** – requires reporting on agency effort to identify and reduce erroneous payment.
- > **Federal Information Security Management Act (FISMA) of 2002** – requires annual evaluations of information security programs and practices.

PAR internet website at
www.cfo.doe.gov/progliaison/par2006.htm

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MESSAGE FROM THE SECRETARY



[To be provided in subsequent drafts.]

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HISTORY, MISSION AND ORGANIZATION HIGHLIGHTS

— HISTORY —

The Department has one of the richest and most diverse histories in the Federal Government, with its lineage tracing back to the Manhattan Project and the race to develop the atomic bomb during World War II. Following that war, Congress created the Atomic Energy Commission in 1946 to oversee the sprawling nuclear scientific and industrial complex supporting the Manhattan Project and to maintain civilian government control over atomic research and development. During the early Cold War Years, the Commission focused on designing and producing nuclear weapons and developing nuclear reactors for naval propulsion. The creation of the Atomic Energy Commission ended the exclusive government use of the atom and began the growth of the commercial nuclear power industry, with the Commission having authority to regulate the new industry.

In response to changing needs and an extended energy crisis the Congress passed the Department of Energy Organization Act in October 1977, creating the Department of Energy. That legislation brought together for the first time not only most of the government's energy programs, but also science and technology programs and defense responsibilities that included the design, construction and testing of nuclear weapons. The Department provided the framework for a comprehensive and balanced national energy plan by coordinating and administering the energy functions of the Federal government. The Department undertook responsibility for long-term, high-risk research and development of energy technology, federal power marketing, energy conservation, the nuclear weapons program, energy regulatory programs, and a central energy data collection and analysis program.

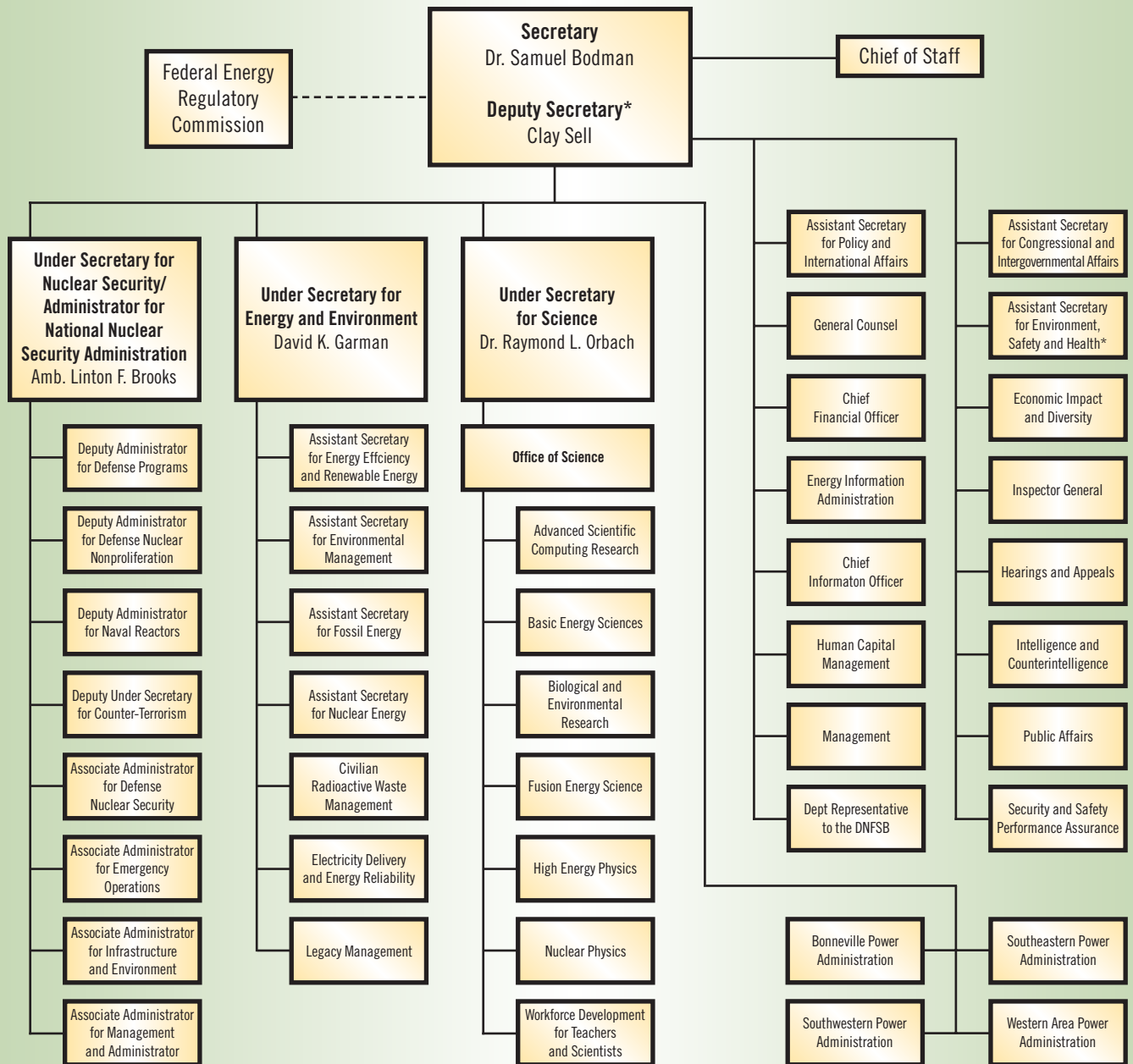
Over its history, the Department has shifted its emphasis and focus as the energy and security needs of the Nation have changed. Today the Department contributes to the future of the Nation by ensuring our energy security, maintaining the safety and reliability of our nuclear stockpile, cleaning up the environment from the legacy of the Cold War and developing innovation in science and technology.



— MISSION —

To advance the national economic and energy security of the United States;
To promote scientific and technological innovation in support of that mission;
To ensure the environmental cleanup of the national nuclear weapons complex.

— ORGANIZATION STRUCTURE —

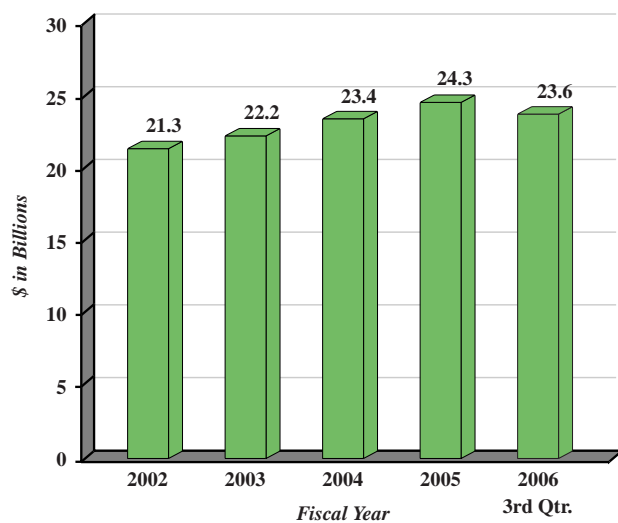


* The Deputy Secretary also serves as the Chief Operating Officer

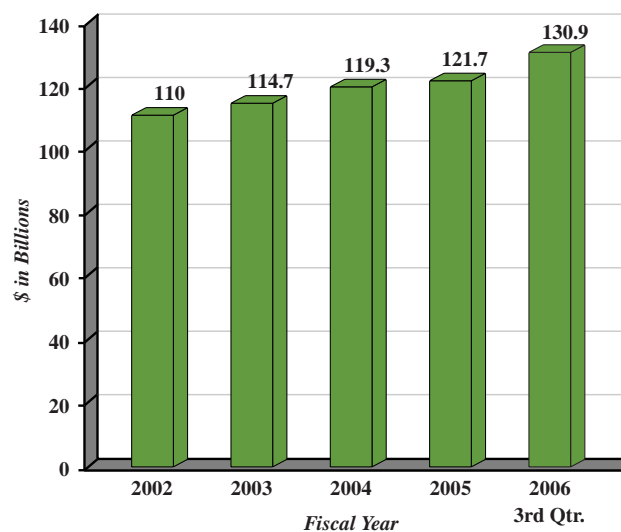
RESOURCES AND LOCATIONS

— FINANCIAL RESOURCES —

Funding

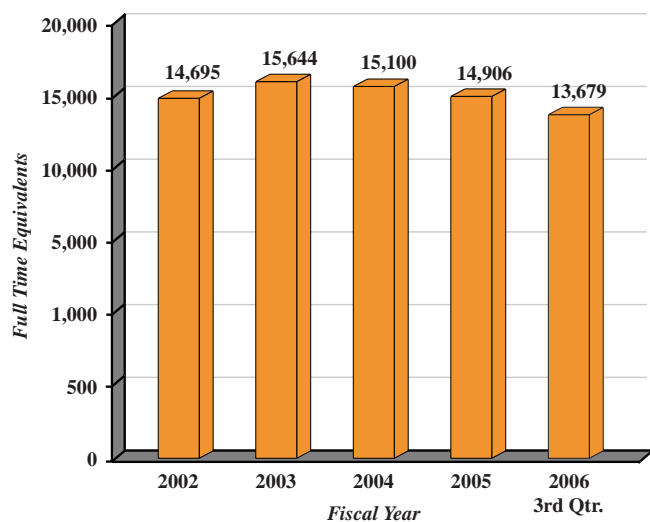


Assets

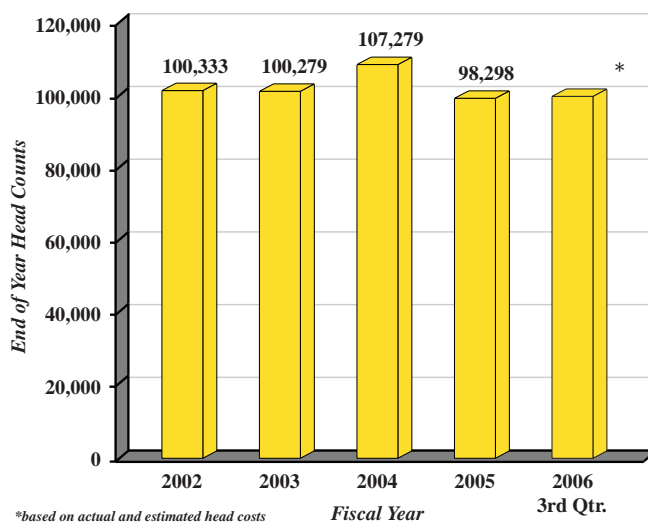


— HUMAN CAPITAL RESOURCES —

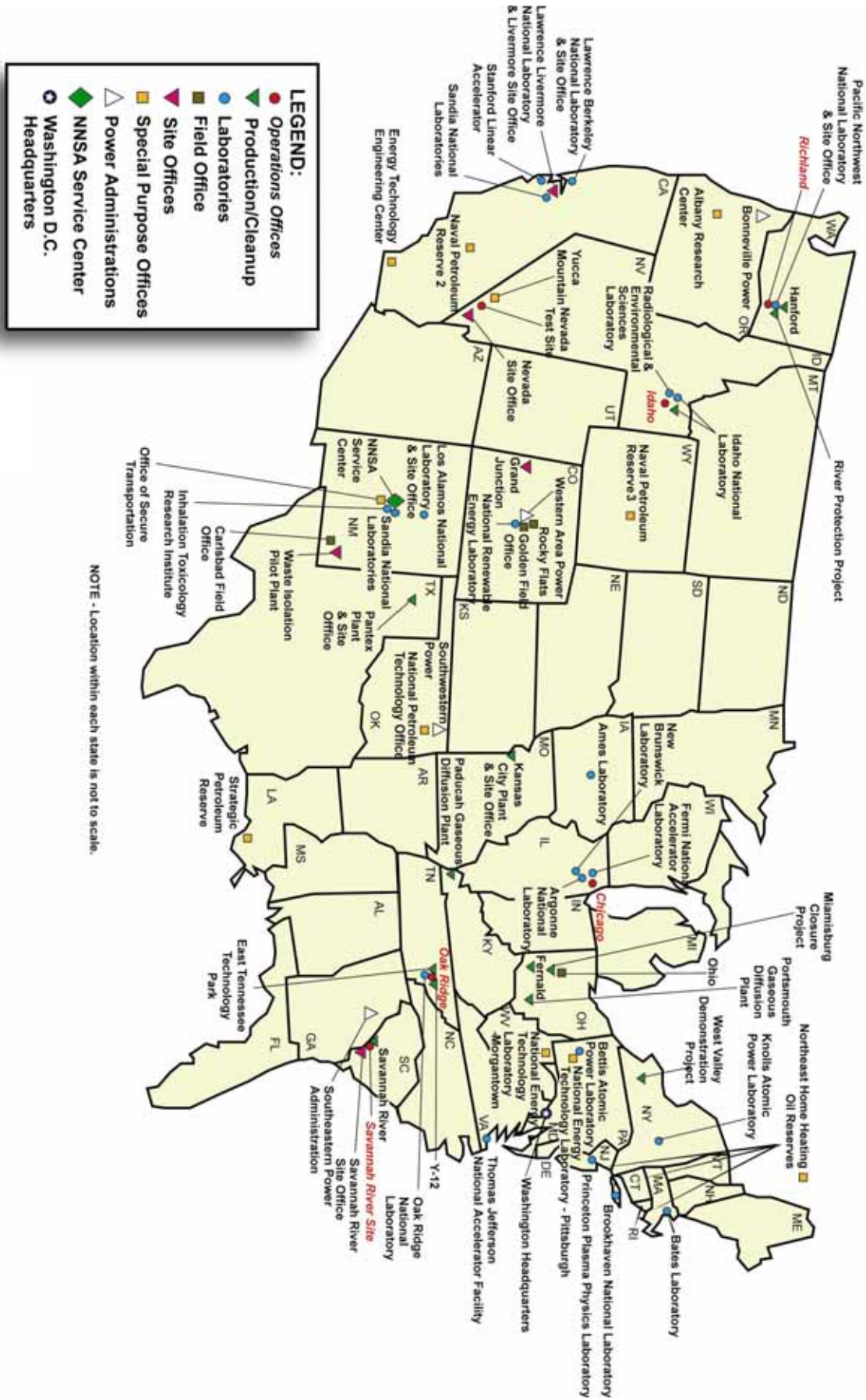
Federal Employees



Contractor Employees











— MAJOR DEPARTMENT OF ENERGY LABORATORIES AND FIELD FACILITIES —



STRATEGIC GOALS AND THEMES

The Department pursues the following four strategic goals and seven supporting general goals to achieve our mission. The performance, financial and other related information presented in this report is structured around these goals.

Strategic and General Goals	— DEFENSE —	Resources Applied (\$ in millions)
Strategic Goal To protect our national security by applying advanced science and nuclear technology to the Nation's defense.		 Program Costs \$ 6,169
General Goals 1 – Maintain nuclear weapons stockpile 2 – Detect and prevent nuclear proliferation 3 – Support nuclear power needs of the U.S. Navy		 Federal Employees 2,658*
Strategic and General Goals	— ENERGY —	Resources Applied (\$ in millions)
Strategic Goal To protect our national and economic security by promoting a diverse supply and delivery of reliable, affordable, and environmentally sound energy.		 Program Costs \$ 5,056
General Goal 4 – Enhance energy security		 Federal Employees 6,617*
Strategic and General Goals	— SCIENCE —	Resources Applied (\$ in millions)
Strategic Goal To protect our national and economic security by providing world-class scientific research capacity and advancing scientific knowledge.		 Program Costs \$ 2,517
General Goal 5 – Maintain a world-class scientific research capacity		 Federal Employees 1,030*
Strategic and General Goals	— ENVIRONMENT —	Resources Applied (\$ in millions)
Strategic Goal To protect the environment by providing a responsible resolution to the environmental legacy of the Cold War and by providing for the permanent disposal of high-level radioactive waste.		 Program Costs \$ 4,713
General Goals 6 – Clean up contamination of sites 7 – Establish a permanent repository for high-level radioactive waste.		 Federal Employees 1,791*

* These Federal Employee numbers do not include the combined 2,926 Federal Energy Regulatory Commission and Corporate Management employees (e.g. CFO, General Counsel, etc.) that support the above four strategic goals.

PERFORMANCE AND ACCOUNTABILITY REPORT CARD

Score	Requirement or Initiative	Supporting Indicators			
	Government Management Reform Act – Financial Statement Audit	Audit Opinion			
	Federal Managers’ Financial Integrity Act – Management Controls (Section II) Financial Systems (Section IV)	TBD			
	OMB Circular A-123, Appendix A	TBD			
Green	Federal Financial Management Improvement Act	Financial Management Systems Meet Federal Requirements			
	Federal Information Security Management Act	TBD			
Green	Improper Payments Information Act	<1% Erroneous Payment Rate Not Considered Significant Risk by OMB			
Green	President's Management Agenda Scorecard	Status	Progress		
	Human Capital	Green	Green		
	Competitive Sourcing	Yellow	Green		
	Financial Performance	Red	Green		
	E-Government	Yellow	Green		
	Budget & Performance Integration	Green	Yellow		
	Federal Real Property Asset Management	Yellow	Green		
	R&D Investment Criteria	TBD	TBD		
Green	Performance Results:				
	Defense Strategic Goal	Green			
	General Goal 1: Nuclear Weapons Stewardship	Green			
	General Goal 2: Nuclear Nonproliferation	Green			
	General Goal 3: Naval Reactors	Green			
	Energy Strategic Goal	Green			
	General Goal 4: Energy Security	Green			
	Science Strategic Goal	Green			
	General Goal 5: Science	Green			
	Environment Strategic Goal	Green			
	General Goal 6: Environmental Mgmt	Green			
	General Goal 7: Nuclear Waste	Green			
	Yellow	Certificate of Excellence in Accountability Reporting	Awarded for FY 2004 PAR Report		
Yellow	Mercatus Performance Scorecard Ranking	Ranking	FY 2003	FY 2004	FY 2005
			12	6	9

PERFORMANCE GOALS, OBJECTIVES AND RESULTS

— PROGRAM PERFORMANCE —

The Department continues to work toward the goals established in our September 2003 *Strategic Plan*. The following sections focus on progress made toward the Department's four strategic goals: Defense, Energy, Science and Environment. The Department's progress toward these strategic goals is described within the context of outcome-based general goals and program goals, and key, output-based annual performance targets. Programmatic benefits to the public are discussed, as are external factors that may potentially impact achievement of the Department's goals.

Additional detailed performance progress is provided in the Performance Results section and provides the year-end assessment of each annual performance target for FY 2006, performance information for the past three fiscal years (FY 2003-2005), and progress on performance targets that were not previously met.

> Performance Management Framework

The Performance Management Framework illustrates the hierarchical relationship of performance elements within the Department. During performance planning, high-level goals direct the scope of elements that lie below; consequently, progress against these goals is indicated by actual performance at the lower levels. Each of these performance elements are described below.

Mission – The Department of Energy's mission is to advance the national economic and energy security of the United States; to promote scientific and technological innovation in support of that mission; and to ensure the environmental cleanup of the national nuclear weapons complex.

Strategic Goals – The Department has four strategic goals that support the achievement of this mission. A strategic goal is a statement of aim or purpose that may not be directly measurable. Strategic goals are used by the Department to guide the creation of general goals and program goals, which are focused on producing outcomes that support the Department's mission.

General Goals – The Department has seven long-term general goals that support the four strategic goals. A general goal defines more specifically what the Department plans to achieve in carrying out its mission over a period of time. General goals are expressed as outcomes, which allow for a future assessment of progress toward the goal.

Program Goals – Outcome-based program goals bridge the gap between long-term general goals and annual performance targets. In

2006, the Department tracked 54 program goals, spread across Departmental administrations and offices. Because they are focused on the core missions of the administrations and offices to which they are assigned, program goals are critical mid-term indicators of Departmental performance.

Annual Performance Targets – In an effort to reduce the number of performance measures to the critical few, the Department monitored 201 annual performance targets in FY 2006 in contrast with 248 in FY 2005. These targets establish a measurable performance baseline against which actual achievement may be assessed. Annual performance targets may be either outcomes or outputs.






> Performance Scorecard

Each Strategic Goal section in the FY 2006 *Performance and Accountability Report* includes a Performance Scorecard. This depiction reveals both cost (program costs and budgetary expenditures) and performance information in a consolidated presentation.

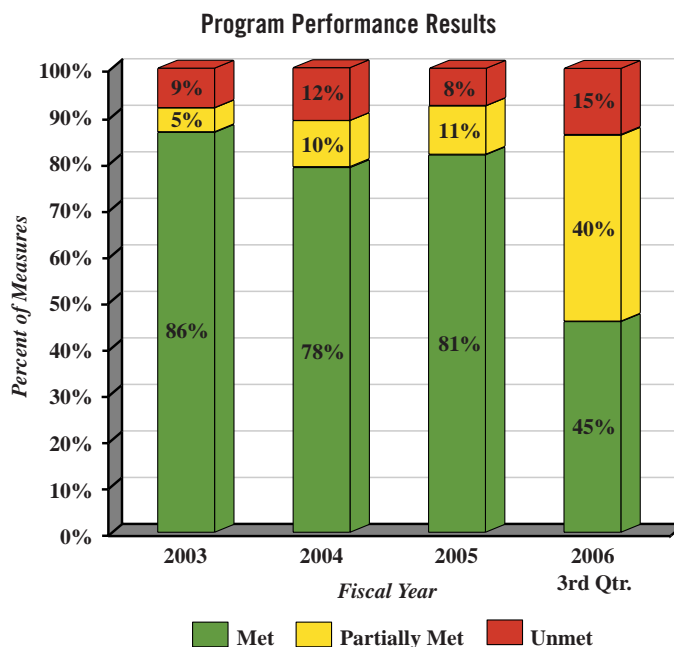
Program costs are defined as full period costs computed using the accrual basis of accounting that recognizes expenses when incurred regardless of when the related budgetary expenditures are made. Budgetary expenditures represent the goods and services received during the current year for which the Department has paid or will be required to pay in the future. It is important to note that the budgetary expenditures will not equal program costs in any particular year because there are significant timing differences between accrued cost and recognition of budgetary expenditures. For example, an asset with a useful life of ten years, purchased in the current year, would have its full cost recognized as a budgetary expenditure, while its full cost for accounting purposes would be spread over its ten-year useful life. Conversely, an unfunded liability recorded in the current year would be recognized as a program cost in the current year, yet would not be recognized as a budgetary expenditure until funding is made available to liquidate the liability.

Performance information is presented for program goals associated to the strategic goal. Actual performance against annual performance targets is recorded on a quarterly basis in Joule, the Department's performance measurement tracking system. These results indicate progress toward associated program goals, and ultimately its general and strategic goals. Performance goals and targets are assessed as Green, Yellow or Red. The definitions used for assessing annual targets and program goals are as follows:

Program Goals	Annual Targets	
90% Met	100% Met	
80% Met; < 90% Met	80% Met; < 100% Met	
< 80 Met; or Undetermined	< 80 Met; or Undetermined	

Program goals and annual targets are assessed differently to provide managers a reasoned approach to performance assessment. Because program goal assessments are based on a roll-up of annual targets, it is important to put the impact of unmet targets in the proper perspective at the program goal level.

The Department adjusts its management strategies each year, as necessary, based on actual performance, current resources, and the national energy and economic outlook. This ensures that the Department is continuously fulfilling its mission.



> Performance Validation and Verification

Validation and verification of the Department's performance is accomplished by certifications, periodic reviews, and audits. The Department's end-of-year reporting process includes certifications by heads of program elements that the reported results are accurate.

The results are internally reviewed by the Department for quality and completeness, while key internal controls related to performance reporting are considered by the Department's independent auditors. Source data substantiating performance target results is maintained by the program offices, the National Laboratories, and the Department's contractor work force. Due to the size and diversity of the Department's portfolio, validation and verification is also supported by the following activities

Budget Preparation Analysis: Validating and verifying program contributions to the Department's strategic and general goals are a routine part of reviewing and analyzing the annual performance budget submission. Performance targets submitted at each phase of budget development are also reviewed to ensure that they contribute effectively to the achievement of the program and Departmental goals.

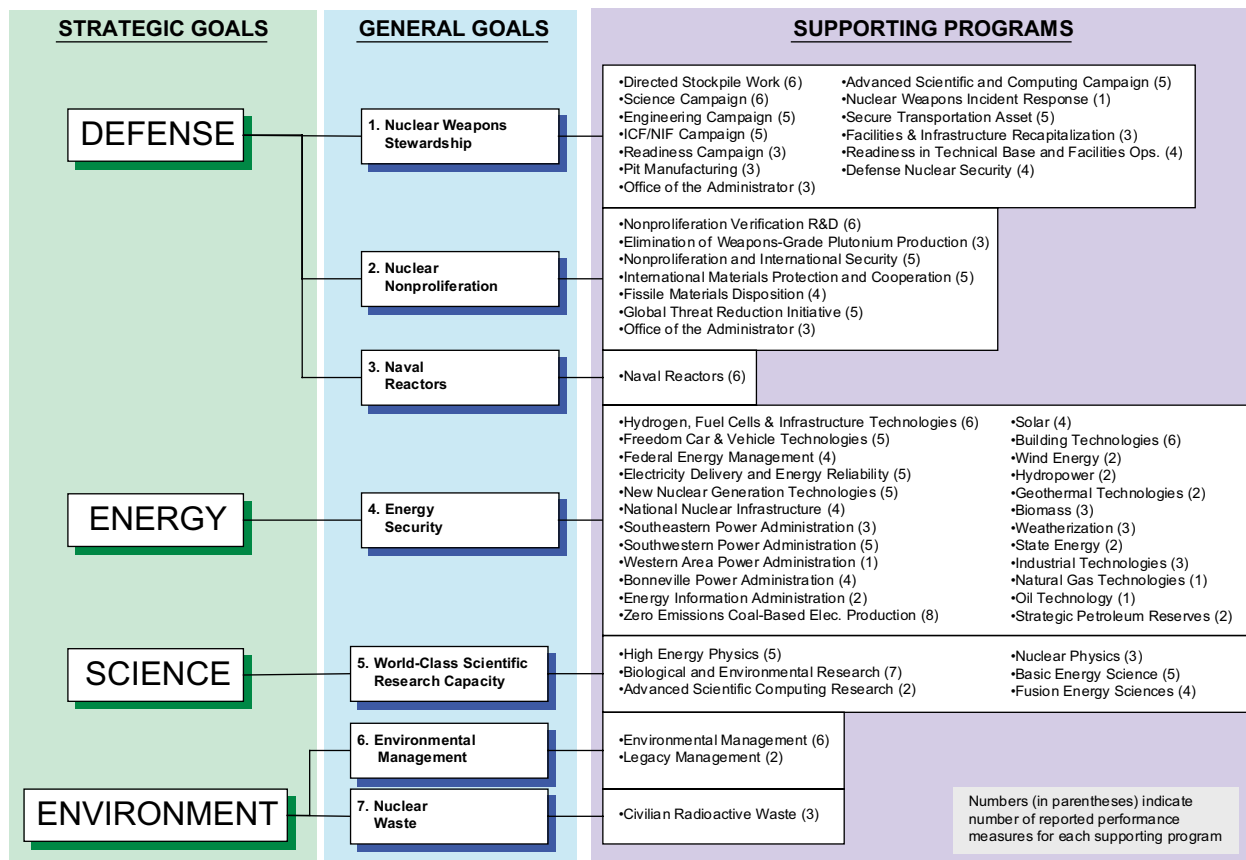
Internal Controls: Training and other forward-looking actions have helped the Department maintain a strong commitment to internal controls that serve to enhance validation and verification of program performance. For example, the Department provides quarterly training that addresses areas such as internal controls over performance measurement, the relevance and meaningfulness of performance targets, and the auditability and accuracy of reported performance results.

Automated Systems: Tracking and evaluating program performance is accomplished by an automated system known as Joule. The system allows for remote data entry of quarterly performance results by Departmental administrations and offices, as well as remote monitoring and oversight by Headquarters. Joule provides the end-of-year performance information that is included in the PAR.

External Independent Analysis: Assessing program performance is also conducted by OMB through use of its Program Assessment Rating Tool (PART). PART results reveal that a majority of the Department's assessed programs periodically initiate independent evaluations to gauge program effectiveness and to support program improvements. Departmental programs and activities are also reviewed and audited on an on-going basis by the Department's Office of Inspector General (<http://www.ig.doe.gov/reports.htm>) and the Government Accountability Office (<http://www.gao.gov/index.html>).

Management Reviews: Evaluating the effectiveness of established internal controls is a requirement of the FMFIA Act of 1992. Accordingly, the Department performs annual evaluations of its internal controls to provide reasonable assurance that they are working effectively; that program and administrative functions (including the accuracy and reliability of the reporting of performance results) are performed in an economical and efficient manner consistent with applicable laws; and that the potential for waste, fraud, abuse or mismanagement of assets is minimized.

— DOE STRATEGIC AND GENERAL GOALS AND SUPPORTING PROGRAMS —

**> Program Assessment Rating Tool (PART)**

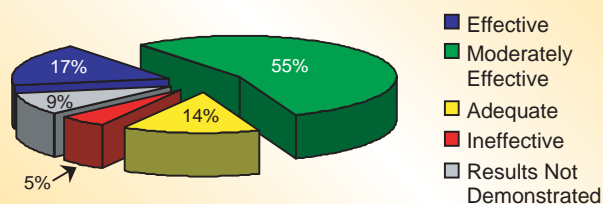
PART was developed by OMB in FY 2002 as a key component for implementing the PMA, particularly the Budget and Performance Integration initiative. PART grew out of the Administration's desire to provide federal agencies with a disciplined tool for assessing program planning, management, and performance against quantitative, outcome-oriented goals. As an instrument for periodically evaluating the efficiency and effectiveness of federal programs, PART enables managers to identify and rectify real and potential problems associated with program performance.

The Department has completed official assessments for 94 percent of its available programs through FY 2005, putting it well-ahead of OMB's implementation schedule for the federal government. Of these 72 percent are rated as "Moderately Effective" or "Effective." More information on PART scores and OMB's findings are available at <http://www.whitehouse.gov/omb/expectmore/index.html>.

PART provides a pathway for the Department and OMB to agree upon meaningful long-term and annual targets for each program. As programs are newly assessed and reassessed, program goals and annual performance targets will be consistent with long-term goals and annual goals tracked within PART.

Ultimately, the PART is designed to be an iterative process, capable of tracking the evolution of program performance over time through periodic reassessments. Key to this process are the recommendations that OMB develops during the assessment process to foster program improvement. Actions taken toward implementing PART recommendations are tracked by Offices and reported to OMB annually. To see the Department's assessment of PART recommendations developed as part of the FY 2006 PART cycle (conducted during calendar year 2004) please refer to the previously identified website.

The on-going implementation and review of PART recommendations, coupled with the utilization of performance information derived from assessments and periodic reassessments, signify the PART as an integral process for planning and budget decision-making, as opposed to a set of one-time program evaluations. The Department will continue to make good use of this tool to ensure mission success.

FY 2006 PART PERFORMANCE

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DEFENSE

— MEETING NATIONAL SECURITY CHALLENGES — TO PROTECT OUR NATIONAL SECURITY BY APPLYING ADVANCED SCIENCE AND NUCLEAR TECHNOLOGY TO THE NATION'S DEFENSE.

One of the primary responsibilities of the Department is to enhance national security through the application of nuclear technology. To accomplish this goal the Department oversees:

- Maintenance and certification of the U.S. nuclear weapons stockpile,
- Development of responsive infrastructure that can adapt quickly to stockpile changes while still drawing down the stockpile of weapons excess to defense needs,
- Security of the nuclear complex, strengthening of international nuclear nonproliferation controls,
- Reduction in global danger from weapons of mass destruction, and
- Provision to the U.S. Navy of safe and effective nuclear propulsion systems.

The National Nuclear Security Administration (NNSA), a semiautonomous agency within the Department, is responsible for these activities critical to our national security.

> General Goal One: Nuclear Weapons Stewardship

Ensure that our nuclear weapons continue to serve their essential deterrence role by maintaining and enhancing the safety, security, and reliability of the U.S. nuclear weapons stockpile.

One of the most important responsibilities of the Secretary of Energy, in cooperation with the Secretary of Defense, is certifying to the President that the Nation's nuclear weapons stockpile is safe, secure, and reliable. To do so, the NNSA:

- Maintains a nuclear weapons stockpile surveillance and engineering capability,
- Refurbishes and extends the lives of selected nuclear systems, and
- Maintains a science and technology base, including the ability to restore the manufacturing infrastructure for the production of replacement weapons, should the need arise.

— DEFENSE PERFORMANCE SCORECARD — (\$ in millions)									
General Goals and Scores	Program Costs		Program Goals and Scores		FY 2006 Budgetary Expenditures Incurred *				Performance of Annual Targets
	3Q 2006	FY 2005			Met (100%)	Met (≥ 80%)	Met (< 80%)	Undetermined	
1. Nuclear Weapons Stewardship	\$4,808	\$6,779	Directed Stockpile Work	R	\$1,148	3	0	3	0
			Science Campaign	G	\$200	6	0	0	0
			Engineering Campaign	G	\$214	5	0	0	0
			Inertial Confinement Fusion Ignition and High Yield Campaign	Y	\$486	4	1	0	0
			Advanced Simulation and Computing Campaign	Y	\$452	4	1	0	0
			Pit Manufacturing and Certification Campaign	Y	\$225	2	0	1	0
			Readiness Campaign	G	\$100	3	0	0	0
			Readiness in Technical Base and Facilities Operations and Maintenance	G	\$1,582	4	0	0	0
			Secure Transportation Asset	Y	\$166	2	2	1	0
			Nuclear Weapons Incident Response	G	\$123	1	0	0	0
			Facilities & Infrastructure Recapitalization Program	G	\$232	3	0	0	0
			Safeguards and Security	Y	\$604	3	1	0	0
			Office of the Administrator **	G	\$303	1	0	0	0
			Nonproliferation and Verification R&D	G	\$220	6	0	0	0
2. Nuclear Non-Proliferation	\$799	\$1,191	Elimination of Weapons-Grade Plutonium Production	Y	\$104	2	1	0	0
			Nonproliferation and International Security	G	\$133	5	0	0	0
			International Nuclear Materials Protection and Cooperation	G	\$224	5	0	0	0
			Fissile Materials Disposition	G	\$317	4	0	0	0
			Global Threat Reduction Initiative	G	\$13	5	0	0	0
			Office of the Administrator **	G	—	—	—	—	—
			Naval Reactors	G	\$755	6	0	0	0
3. Naval Reactors	\$562	\$810	Naval Reactors	G	\$755	6	0	0	0
Total Cost	\$6,169	\$8,780			\$7,601	74	6	5	0

* Includes capital expenditures but excludes such items as depreciation, changes in unfunded liability estimates and certain other non-fund costs, and allocations of Departmental administration activities.

** Program goal and associated annual targets are shared by General Goal 1 and 2.

These capabilities ensure the vitality of our nuclear weapons without the need for underground nuclear testing.

— How We Serve the Public

Each year the NNSA certifies the readiness of 100 percent of the strategically deployed nuclear weapons, an activity necessitated when the United States stopped development and production of new nuclear warheads following the end of the Cold War and established a moratorium on nuclear testing. To this end, the Department adopted a science-based Stockpile Stewardship Program (SSP) that emphasizes development and application of greatly improved technical capabilities to assess the safety, security, and reliability of existing nuclear warheads without the use of nuclear testing.

In FY 2006, NNSA announced the details of Nuclear Weapons Complex 2030, a comprehensive plan to enhance our capability to respond to changing national and global security challenges. For the Nuclear Weapons Complex 2030, NNSA plans to employ a smaller, safer and more secure nuclear weapons stockpile that has assured reliability over the long term, and is backed by the industrial and design capabilities needed to respond to changing technical, geopolitical or military needs. This plan will facilitate the President's vision for the smallest stockpile consistent with our national security needs.

During FY 2006, NNSA started six major activities for the Nuclear Weapons Complex 2030. NNSA engaged two teams from the nuclear weapons labs—one from Los Alamos and one from Livermore, both supported by Sandia National Laboratory—in a Reliable Replacement Warhead (RRW) design. If RRW is technically feasible, NNSA will seek authorization to proceed to engineering development and production. NNSA accelerated warhead dismantlements to enhance readiness of the remaining stockpile, assure other nations we are not building up our stockpile, and reduce the security risks associated with safeguarding retired weapons. NNSA established an office within Defense Programs both to drive change and lead nuclear weapons complex transformation. NNSA began managing risk more effectively in R&D and production activities by employing cost-benefit analysis and risk-informed decisions. NNSA started establishing distributed production centers of excellence at the current production complex to include transition of all R&D and production involving Cat I/II quantities of plutonium (except sub-critical experiments at the Nevada Test Site) to a single site—a consolidated plutonium center—in the early 2020s. NNSA moved toward consolidating special nuclear material to fewer sites, and fewer locations within sites.

Reliable Replacement Warhead

The concept for RRW is in contrast with the Cold War design constraints that maximized yield to weight ratios. RRW will facilitate design replacement components that are easier to manufacture; are safer and more secure; are less environmentally dangerous, and contain fewer reactive and unstable materials; and increase design margins thus

ensuring long-term confidence in reliability and a correspondingly reduced chance for conducting a nuclear test for stockpile confidence. RRW will provide leverage for a more efficient and responsive infrastructure and opportunities for a smaller stockpile. During the decade or more needed to complete the transition to an RRW, legacy warheads must be supported through associated life extension programs.



Responsive Infrastructure

The envisioned 2030 infrastructure to support the stockpile will have the following characteristics:

- strengthened, but consolidated R&D infrastructure;
- modernized production complex with a consolidated plutonium center and increased production throughput;
- consolidated of Cat I/II nuclear materials at fewer sites and fewer locations within sites, and
- streamlined business practices, including a more effective approach to managing risks.

NNSA undertook several steps in FY 2006 to start the transformations required for the Reliable Infrastructure. Major scientific and experimental facilities, such as the National Ignition Facility (NIF) and the Dual-Axis Radiographic Hydrotest (DARHT) facilities were being converted into national, shared user facilities managed to benefit the entire complex and to eliminate redundant capabilities and programs reflected in today's complex. The NIF is designed to create and measure extreme temperature and pressure conditions of a simulated nuclear explosion. DARHT is designed to provide x-ray images of weapons implosion processes, supporting weapons certification and assessment.



> **Inside Out:** The interior of the National Ignition Facility target chamber at Lawrence Livermore National Laboratory.

— Performance Against Key Targets

The NNSA ensures that the nuclear warheads and bombs in the U.S. nuclear stockpile are safe, secure, and reliable by:

- Developing solutions to extend weapon life and correcting potential technical issues;
- Conducting scheduled warhead/bomb maintenance;
- Dismantling warheads/bombs retired from the stockpile;
- Conducting evaluations to certify warhead/bomb reliability and to detect/predict potential weapon fixes, mainly from aging;
- Producing and refurbishing warheads/bombs to install the life extension solutions and other fixes; and
- Researching advanced concepts to serve their essential deterrence role by maintaining and enhancing the safety, security, and reliability of the U.S. nuclear weapons stockpile.

During FY 2006, the NNSA:

- Assured that 100 percent of the nuclear warhead stockpile is safe, secure, reliable and available. This activity, conducted jointly with the Department of Defense (DoD), is critically important to U.S. national security in the absence of underground nuclear weapon testing, which has been banned by U.S. adherence to the 1992 moratorium.
- Completed 34 to 40 percent of the life extension programs for the B61-7/11 for the F15 and F16 fighter jets and W76-1 for the Trident submarine. Extending the life of existing weapons has been a cost effective way to provide nuclear security.
- Completed 60 percent of the DARHT facility to provide data required to certify the safety and reliability of the U.S. nuclear weapons stockpile.
- Completed 87 percent of the construction of the 192-laser beam NIF, as targeted. The NIF also provides data required to certify the safety and reliability of the U.S. nuclear weapons stockpile.
- Achieved a maximum individual computing production platform of 100 trillion operations per second. This capability, part of the Advanced Simulation Computing Campaign, will ultimately help conduct nuclear stockpile certification for all weapons systems by using highly complex, three dimensional simulations.
- Completed 96 percent of the Tritium Extraction Facility within the cost estimate, as targeted. This facility is designed to extract and refresh tritium in a nuclear weapon. However, the program suffered minor delays due to the temporary shut-down of a building with fire-prevention deficiencies.
- Reduced deferred maintenance within the nuclear weapons complex by \$60 million as part of the Facilities and Infrastructure

Recapitalization Program, meeting the annual target. To date, 28 percent of the \$1.2 billion in deferred maintenance has been addressed.

- Trained personnel provided equipment and ensured security plans for responding to and mitigating nuclear and radiological incidents worldwide. The program overcame delays to deliver a 91 percent Emergency Operations Readiness Index in FY 2006.
- Completed 92 secure convoys of special nuclear material to meet DOE, DoD, and other customer requirements, using advanced equipment and highly trained personnel. In response to the deferral of DOE's Environmental Management work until FY 2007, NNSA coordinated with other customers to increase shipments in order to avoid future backlogs.

— External Factors

The following external factors could affect the Department's ability to achieve this goal:

Technology: Technological development is inherently unpredictable. The discovery of an insurmountable scientific or engineering obstacle in a credible science-based stockpile stewardship program could force the resumption of underground nuclear testing.

Nuclear Threats: Changes in the nuclear threats posed to the United States could require changes to our nuclear weapons stewardship programs.

> General Goal Two: Nuclear Nonproliferation

Provide technical leadership to limit or prevent the spread of materials, technology, and expertise relating to weapons of mass destruction; advance the technologies to detect the proliferation of weapons of mass destruction worldwide; and eliminate or secure inventories of surplus materials and infrastructure usable for nuclear weapons.

To implement its mission, the NNSA:

- Secures nuclear materials, nuclear weapons, and radiological materials at potentially vulnerable sites in Russia and elsewhere,
- Reduces quantities of nuclear and radiological materials,
- Bolsters border security overseas,
- Strengthens international nonproliferation and export control regimes,
- Downsizes the nuclear weapons infrastructure of the former Soviet Union (FSU),
- Mitigates risks at nuclear facilities worldwide, and
- Conducts cutting-edge nonproliferation and national security R&D.

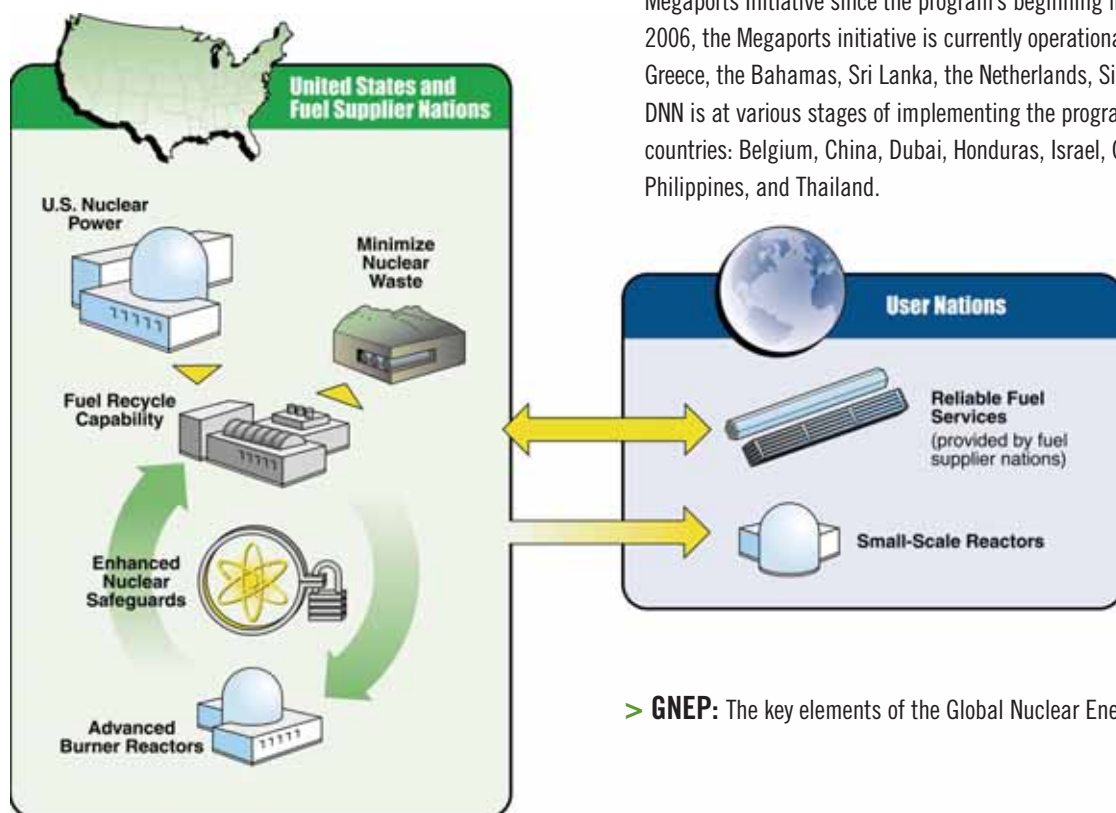
— How We Serve the Public

The NNSA reduces the threat posed by the proliferation of fissile material by helping to secure domestic and foreign stockpiles of weapons-grade material. In addition, the NNSA oversees the dismantlement, destruction, and ultimate disposition of weapons including the down-blending of highly-enriched uranium (HEU) or the burning of plutonium as mixed oxide (MOX) fuel in nuclear energy plants. The NNSA further reduces risk through controlling exports of nuclear-related technologies, monitoring borders for the movement of fissile materials, and ensuring the employment of foreign nuclear-related scientists and engineers in other more productive pursuits. A number of FY 2006 activities directly serve the public.



> Uranium: Highly Enriched Uranium (HEU) is down-blended with other forms of uranium to produce Low Enriched Uranium (LEU), suitable for commercial, civilian purposes.

- As part of President Bush's Advanced Energy Initiative, Secretary of Energy Samuel W. Bodman launched the Global Nuclear Energy Partnership (GNEP) in February 2006. This new initiative is a comprehensive strategy to enable the expansion of emissions-free nuclear energy worldwide by demonstrating and deploying new technologies to recycle nuclear fuel, minimize waste, and improve our ability to keep nuclear technologies and materials out of the hands of terrorists.



To foster the GNEP, NNSA will be required to coordinate with DOE's Office of Nuclear Energy, on nuclear energy technology and safeguards and security. GNEP's success rests ultimately on two factors: technical achievement and international political acceptance. This will require readying advanced fuel cycle technologies for commercial deployment. It will also require that safeguards, security and nonproliferation be integrated into technical designs. Incentives that underlay GNEP, such as fuel cycle services, international cooperation on safeguards, security and peaceful nuclear uses, and improved international nonproliferation controls, must also be matured. Drawing on proven capabilities, NNSA will have the lead in developing GNEP's nonproliferation elements.

- Also during FY 2006, site preparation began on the MOX Fuel Fabrication Facility at Savannah River Site. The MOX facility will allow the United States to reduce the threat of terrorists or rogue nations obtaining nuclear weapon materials by converting it to a fuel for use in existing nuclear reactors. NNSA will also dispose of surplus weapon-grade plutonium by converting it to MOX fuel used for reactors, thus eliminating its availability for nuclear weapons.
- Other non-proliferation activities include NNSA's successful "Megaports" initiative which installs sophisticated radiation detection equipment at many of the world's international ports. This initiative, in conjunction with the Second Line of Defense program, provides detection systems at vulnerable seaports, airports and other land border crossings worldwide in order to minimize the risk of nuclear proliferation and terrorism through detection and deterrence of illicit trafficking in plutonium, HEU and other radioactive materials at international borders. Defense Nuclear Nonproliferation (DNN) has made steady progress on the Megaports Initiative since the program's beginning in FY 2003. As of 2006, the Megaports initiative is currently operational in six countries: Greece, the Bahamas, Sri Lanka, the Netherlands, Singapore, and Spain. DNN is at various stages of implementing the program in the following countries: Belgium, China, Dubai, Honduras, Israel, Oman, the Philippines, and Thailand.

> GNEP: The key elements of the Global Nuclear Energy Project (GNEP).

— Performance Against Key Targets

The Department draws from its world-class scientific and technical expertise, and leverages existing nonproliferation programs to identify and prioritize vulnerable materials, remove or secure such materials, convert research and test reactors, and take any other steps necessary to meet changing threats. Much of NNSA's nonproliferation work is conducted abroad. Uncertainties in this operating environment impact the completion of NNSA's annual goals, most notably the construction of fossil fuel plants to eliminate weapons grade plutonium production in Russia and the FSU, including the construction of a mixed-oxide fuel facility in Russia and installation of Second Line of Defense sites in Russia and other regions of concern.

During FY 2006, the NNSA:

- Completed as planned 55 percent of the refurbishment of a fossil fuel plant in Seversk, Russia. When complete, this plant – along with the construction of another plant in Zheleznogorsk, Russia – will provide an alternative fossil fuel power source permitting the shutdown of three nuclear reactors, which currently produce up to 1.2 metric tons of weapons-grade plutonium annually.
- Progressed on the facility and equipment design, construction, and cold start-up activities for the U.S. MOX facility. As planned, 17 percent of the work associated with this facility was completed by the end of FY 2006. MOX facilities support nuclear nonproliferation by reducing the supply of fissile material.
- Installed a cumulative 114 Second Line of Defense sites and 10 Megaport sites, as targeted. The NNSA provides assistance to foreign governments to identify and intercept illegal shipments of weapons materials by working in Russia and other regions of concern.
- Progressed on the facility design, construction and cold start-up activities for the Plutonium Disassembly and Conversion Facility. This facility will provide the U.S. with the capability to disassemble surplus nuclear weapons pits and convert the resulting plutonium metal to plutonium oxide, reducing the supply of fissile material.
- Employed 15,900 displaced Russian and FSU experts through Global Initiatives to Prevent Proliferation grants, Nonproliferation and International Security grants, or private-sector jobs as planned. Employing skilled nuclear-trained professionals in endeavors such as medical technology helps prevent the spread of sensitive knowledge to rogue states.

— External Factors

The following external factors could affect our ability to achieve this goal:

Close Cooperation with Russia: Cooperation between the United States and Russia has made it possible to make great strides in securing and eliminating inventories of surplus materials. A close relationship is necessary for future progress.

International Atomic Energy Agency: This agency is essential to the success of our efforts to control nuclear proliferation. It is uncertain whether the agency will receive the necessary funding and show the necessary leadership to member countries. Close monitoring of this situation will continue.

Technology: Technological development is uncertain and unpredictable. Our efforts to develop nuclear weapons/material detection technology may be more or less successful than predicted, which would have a corresponding positive or negative impact on our efforts.

> General Goal 3: Naval Reactors

Provide the Navy with safe, militarily effective nuclear propulsion plants and ensure their continued safe and reliable operation.

Naval nuclear propulsion plants currently power about 40 percent of the Navy's principal combatants. The NNSA will continue to provide the Navy and the DoD with reliable and militarily effective nuclear power through the Naval Reactors program. New technologies, methods, and materials to support reactor plant design for future generations of submarines, aircraft carriers, and other combat ships are also developed under this program.



> **USS Ronald Reagan:** The nuclear-powered aircraft carrier, USS RONALD REAGAN (CVN 76), being welcomed for the first time in her new homeport, San Diego, California.

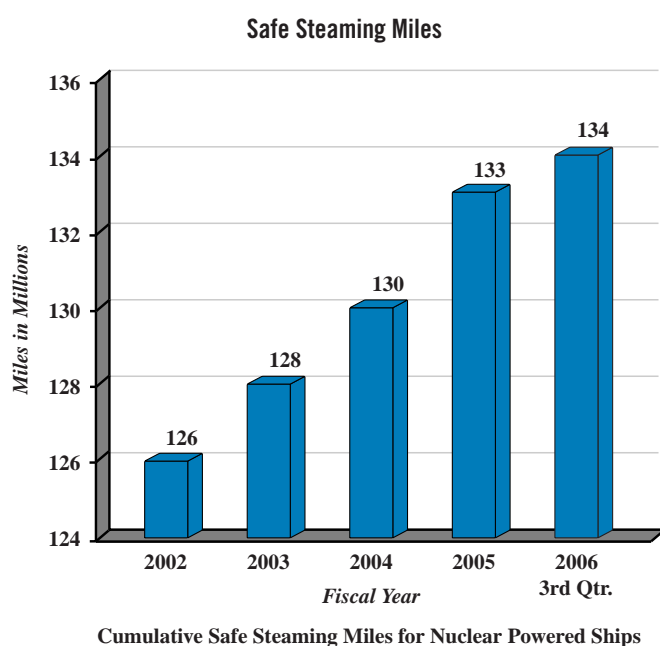
— *How We Serve the Public*

NNSA's Naval Reactors program serves the public by providing the Navy with safe, militarily effective nuclear propulsion plants and ensuring their continued safe and reliable operation. This program, which supports the nuclear powered submarines and carriers around the world, remains a vital part of the national security mission and the Global War on Terrorism.

— *Performance Against Key Targets*

During FY 2006, the NNSA:

- Achieved 2 million miles of safe steaming in nuclear-powered ships and the design of new reactors. Since its inception, the Naval Reactors program has achieved 134 million miles of safe nuclear propulsion, as shown in the chart below.



- Completed 75 percent of the next generation aircraft carrier reactor design (referred to as the CVN 21). The CVN 21 nuclear propulsion plant will have increased core energy, nearly three times the electrical plant generating capacity, and will require half of the Reactor Department sailors, compared to today's operational aircraft carriers.

— *External Factors*

Currently, no external factors appear to impact the ability to achieve this General Goal. However, given the unique nature of the Naval Reactor's responsibilities, commitments to both DOE and the U.S. Navy must be considered at all times. Therefore, any external factor seriously affecting either organization's policies may have an impact on the Program's ability to achieve this goal.

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ENERGY

— INVESTING IN AMERICA'S ENERGY FUTURE —

TO PROTECT OUR NATIONAL AND ECONOMIC SECURITY BY PROMOTING A DIVERSE SUPPLY AND DELIVERY OF RELIABLE, AFFORDABLE, AND ENVIRONMENTALLY SOUND ENERGY.

The demand for energy in the U.S. is rising much faster than the projected increase in domestic energy production. The shortfall between domestic energy demand and domestic supply is projected to increase nearly 50 percent by 2020. That projected shortfall can be made up in only three ways – import more energy, improve energy conservation and efficiency, and/or increase domestic supply.

The Administration considered these options in its development of the National Energy Policy (NEP). It concluded that increased dependence on oil imports from volatile regions of the world would jeopardize our national and economic security. As imports rise, so does our vulnerability to price shocks, shortages, and disruptions. For that reason, the Administration resolved to take steps to improve energy conservation and efficiency, increase domestic energy production, and increase the reliability and security of imports in

order to avoid increased dependence on imports from volatile regions of the world.

Largely consistent with the priorities set forth in the NEP, the President signed the Energy Policy Act into law in August 2005. This law is the first comprehensive energy plan in more than a decade. It encourages energy efficiency and conservation, promotes alternative and renewable energy sources, reduces our dependence on foreign sources of energy, increases domestic production, modernizes the electricity grid, and encourages the expansion of nuclear energy.

Science and technology are the Department's principal tools for achieving the goals of the NEP and the Energy Policy Act. The Department invests in high-risk, high-value energy research and development (R&D) that the private sector alone would not or could not develop in a market-driven economy.

— ENERGY PERFORMANCE SCORECARD — (\$ in millions)									
General Goal and Score	Program Costs		Program Goals and Scores		FY 2006 Budgetary Expenditures Incurred *	Performance of Annual Targets			
	3Q 2006	FY 2005				Met (100%)	Met (≥ 80% but < 100%)	Met (< 80%)	Undetermined
4. Energy Security	\$5,056	\$6,617	Hydrogen & Fuel Cell Technology	G	\$81	6	0	0	0
			Vehicle Technologies	Y	\$133	4	0	1	0
			Solar Energy	G	\$244	4	0	0	0
			Building Technologies	Y	\$53	5	0	1	0
			Wind Energy	G	\$28	2	0	0	0
			Hydropower	G	\$2	2	0	0	0
			Geothermal Technology	G	\$25	2	0	0	0
			Biomass & Biorefinery Systems R&D	G	\$85	3	0	0	0
			Weatherization Program	Y	\$181	2	0	1	0
			State Energy Programs	G	\$80	2	0	0	0
			DOE/Federal Energy Management Program	G	\$1	4	0	1	0
			Industrial Technologies Program	G	\$62	3	0	0	0
			Zero Emissions Coal-Based Electricity & Hydrogen Production	G	\$308	7	0	1	0
			Natural Gas Technologies	G	\$38	1	0	0	0
			Oil Technology	G	\$50	1	0	0	0
			Petroleum Reserves	G	\$264	2	0	0	0
			New Nuclear Generation Technologies	G	\$159	5	0	0	0
			National Nuclear Infrastructure	Y	\$168	3	0	0	0
			Electric Transmission & Distribution	G	\$137	5	0	2	0
			Southeastern Power Administration	Y	\$26	1	0	2	0
			Southwestern Power Administration	Y	\$56	4	1	0	0
			Western Area Power Administration	G	\$531	1	0	0	0
			Bonneville Power Administration	G	\$3,608	4	0	0	0
			Energy Information Administration	G	\$70	2	0	0	0
Total Cost	\$5,056	\$6,617			\$6,390	75	1	9	0
* Includes capital expenditures but excludes such items as depreciation, changes in unfunded liability estimates and certain other non-fund costs, and allocations of Departmental administration activities.									



> Fill Up: President George W. Bush at a Washington D.C. Shell Station, the first integrated gasoline/hydrogen station in North America. The Department's Hydrogen "Learning Demonstration," brings together automobile makers and energy companies to test fuel cell vehicles and hydrogen fueling systems in real-world conditions.

> General Goal 4: Energy Security

Improve energy security by developing technologies that foster a diverse supply of reliable, affordable, and environmentally sound energy by providing for reliable delivery of energy, guarding against energy emergencies, exploring advanced technologies that make a fundamental improvement in our mix of energy options, and improving energy efficiency.

The programs supporting this General Goal follow through with the President's promise for a strong, secure economy, and an energy-independent future. Investments are being made that will benefit the Nation today and in the future, including expanding energy supplies, assessing and addressing energy infrastructure vulnerabilities, and developing energy assurance activities consistent with the NEP and Energy Policy Act.

The Department's technologies draw on all of the Nation's available resources: renewable energy sources (including hydropower, wind, solar, bioenergy, and geothermal), nuclear energy, oil, natural gas,

coal, and reductions in demand through conservation and energy efficiency technologies and processes. The Administration believes it is not the role of the Federal Government to choose the energy sources for the country. Instead, its role is to help the private sector develop technologies capable of providing a diverse supply of energy, and to allow the market to decide how much of each energy source is actually used. Diversity of energy sources can help provide stability and guard against price spikes, helping to ensure the Nation's energy security.

— Energy Efficiency and Renewable Energy

The Department's Office of Energy Efficiency and Renewable Energy's (EERE) mission is to strengthen America's energy security, environmental quality, and economic vitality through public-private partnerships with the private sector, state and local governments, DOE national laboratories, and universities. These partnerships seek to promote energy efficiency and productivity, bring clean, reliable and affordable energy technologies to the marketplace, and make a difference in the everyday lives of Americans by enhancing their energy choices and quality of life.

— How We Serve the Public

Renewable energy technologies hold tremendous promise in moving the Nation toward sustained, low emission electricity, hydrogen supply, and affordable biofuels. Government-sponsored R&D efforts over recent decades have been very successful in helping to lower costs and improve the reliability of renewable energy technologies, and more can be achieved with robust research and development in the future. The Department's programs address both the supply and demand sides of the energy security equation by ensuring energy security in three general areas:

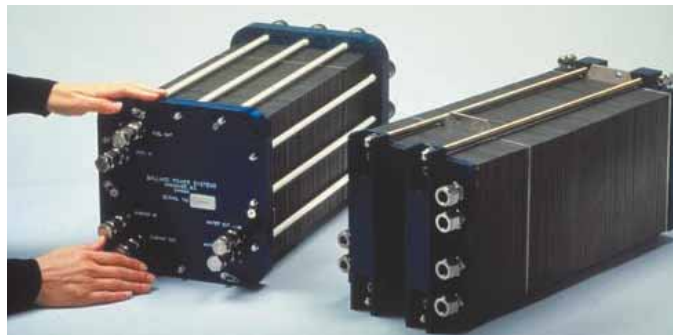
- **Replacement of Conventional Fuels** – The Vehicle Technology and Hydrogen programs work together through the FreedomCAR Partnership and Hydrogen Fuel Initiative as well as the President's Advanced Energy Initiative to develop technologies that, over the next several decades, have the potential to virtually eliminate the use of petroleum for transportation. During FY 2006, six hydrogen refueling stations were opened: in Jamestown, Florida; Oakland, San Francisco, and Sacramento, California; and in Detroit and Taylor, Michigan. These learning demonstration projects address major technical and economic hurdles in electrolyzer technology and distributed hydrogen production that must be overcome to make these technologies a reality.
- **Clean, Affordable Renewable Energy Sources** – The Solar Energy Technology R&D program works to provide clean, reliable, affordable solar electricity for the Nation through its research programs in photovoltaic energy systems, concentrating solar power systems and solar hot water systems. Photovoltaic technology, for example, makes use of the abundant energy in the sun to convert sunlight directly into electricity for residential and commercial buildings, including power for lights and air conditioning. The Department has continued to demonstrate greater increases in conversion efficiency, and is working to drive down production costs for PV modules.
- **Energy Efficiency and Conservation** – The Weatherization and Intergovernmental Program is the central program for deployment of energy-efficient and renewable energy technologies. Program activities are highly leveraged, permitting even more results than DOE funding alone could achieve. The Program funds energy projects, provides technical assistance, delivers weatherization assistance to low-income families in the United States, and participates in energy and economic development programs overseas. The Weatherization Assistance Program improves the energy efficiency of more than 100,000 low-income homes a year; DOE disburses funds to states, Indian tribes, and the District of Columbia on a formula basis and these entities award funding to local agencies.

— Performance Against Key Targets

During FY 2006, the Department:

- Achieved a modeled technology cost of \$110 per kilowatt for a hydrogen-fueled, 80 kilowatt fuel cell power system, meeting the annual target. The Hydrogen, Fuel Cells, and Infrastructure

Technologies program is conducting R&D to develop hydrogen production, storage, delivery, and fuel cell technologies to the point that they are cost and performance competitive and are being used by the Nation's transportation, stationary, and portable power industries.



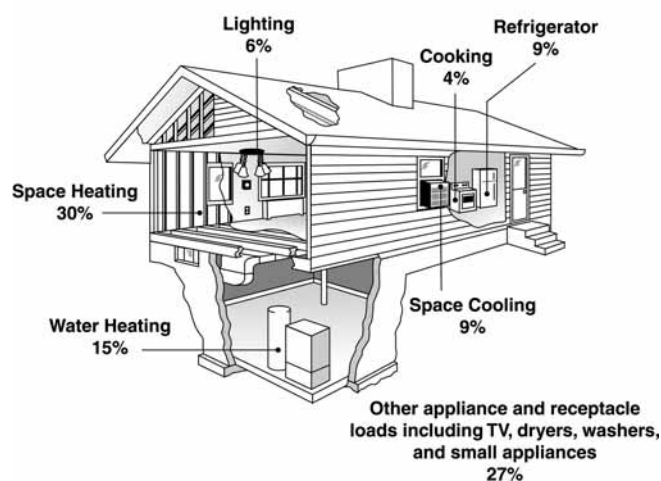
> Fuel Cell: A fuel cell uses the chemical energy of hydrogen to produce electricity and water, cleanly and efficiently.

- Reduced to \$750 the cost of a high power, light vehicle lithium ion battery, meeting the annual target. The Vehicle Technologies program goal is to develop technologies that enable cars and trucks to become highly efficient through improved hybrid power technologies, cleaner domestic fuels, and lightweight materials, and to be cost and performance competitive. Manufacturers and consumers will use these technologies to help the Nation reduce both energy use and greenhouse gas emissions, thus improving energy security by dramatically reducing dependence on oil.
- Verified, through laboratory testing, the conversion efficiencies of commercial production of 13.8 percent efficient crystalline silicon modules and 11.2 percent efficient thin film modules, meeting the annual target. Improving conversion efficiencies, which represents the percentage of light energy from the sun that is actually converted into electricity, is a key objective for improving the performance of solar energy systems. The Solar program goal is not only to improve performance of solar energy systems but also to reduce development, production, and installation costs to competitive levels as well. This will accelerate large-scale usages across the Nation and make a significant contribution to a clean, reliable, and flexible U.S. energy supply.
- Completed R&D activities that resulted in meeting the following annual targets: a 4.2 cents/kWh cost of energy for large land-based wind systems, 9.3 cents/kWh for large offshore wind systems, and 10-15 cents/kWh for distributed wind systems (under 100 kw), all based on a fixed technology baseline (which differs from current market conditions). The Technology Acceptance activities led to partial completion of its goal to help facilitate installations of wind energy in 19 states. The Wind Energy Technologies program leads the Nation's R&D efforts to improve wind energy technologies that enhance domestic economic benefits from wind power development. By 2012, the program goal is to complete technology R&D and

collaborative efforts, and to provide technical support and outreach needed to overcome barriers — energy cost, energy market rules and infrastructure, and energy sector acceptance — to enable wind energy to compete with conventional fuels.

- Weatherized over 97,300 homes with DOE funds, and weatherized an additional 100,000 homes using leveraged (combination of DOE, state, and local) funds, meeting the annual target (EE GG 4.09.10). Made 56 awards to states, the District of Columbia, and the territories in June 2006, making the annual target. Established performance criteria and quality standards and a procedure under which a manufacturer can request that an item be treated as a renewable energy system eligible for the Weatherization Assistance Program, meeting an Energy Policy Act of 2005 milestone.
- Continued its commitment to the appliance and equipment standards program by aggressively addressing the backlog of rulemakings and meeting all of its statutory requirements. The Department published the En Masse EPACT 2005 Standards Final Rule, the En Masse Test Procedure Proposed Rule, Proposed Standards for Distribution Transformers, Test Procedures for Residential Central Air Conditioners and Heat Pumps, Test Procedures for Distribution Transformers, and a Determination for Small Motors.

Energy Use in a Low-Income Household



> Since 1999: DOE has been encouraging the network of weatherization providers to adopt the whole-house approach whereby they attack residential energy efficiency as a system rather than as a collection of unrelated pieces of equipment.

— Nuclear Energy

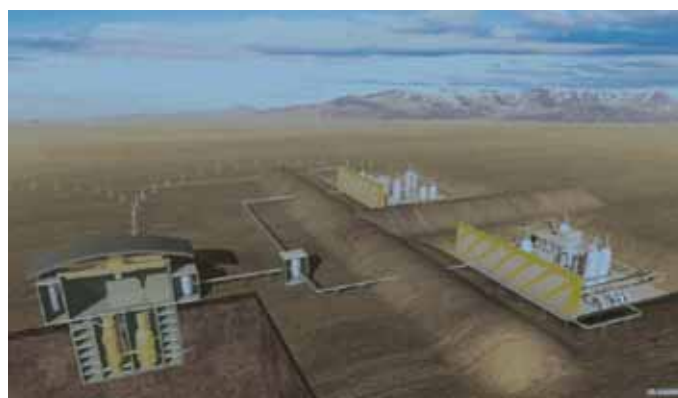
The Department's Office of Nuclear Energy (NE) leads the development of new nuclear energy generation technologies to meet energy and climate goals and advanced nuclear reactor and fuel cycle technologies that maximize energy from nuclear fuel, while maintaining and enhancing the national nuclear infrastructure.



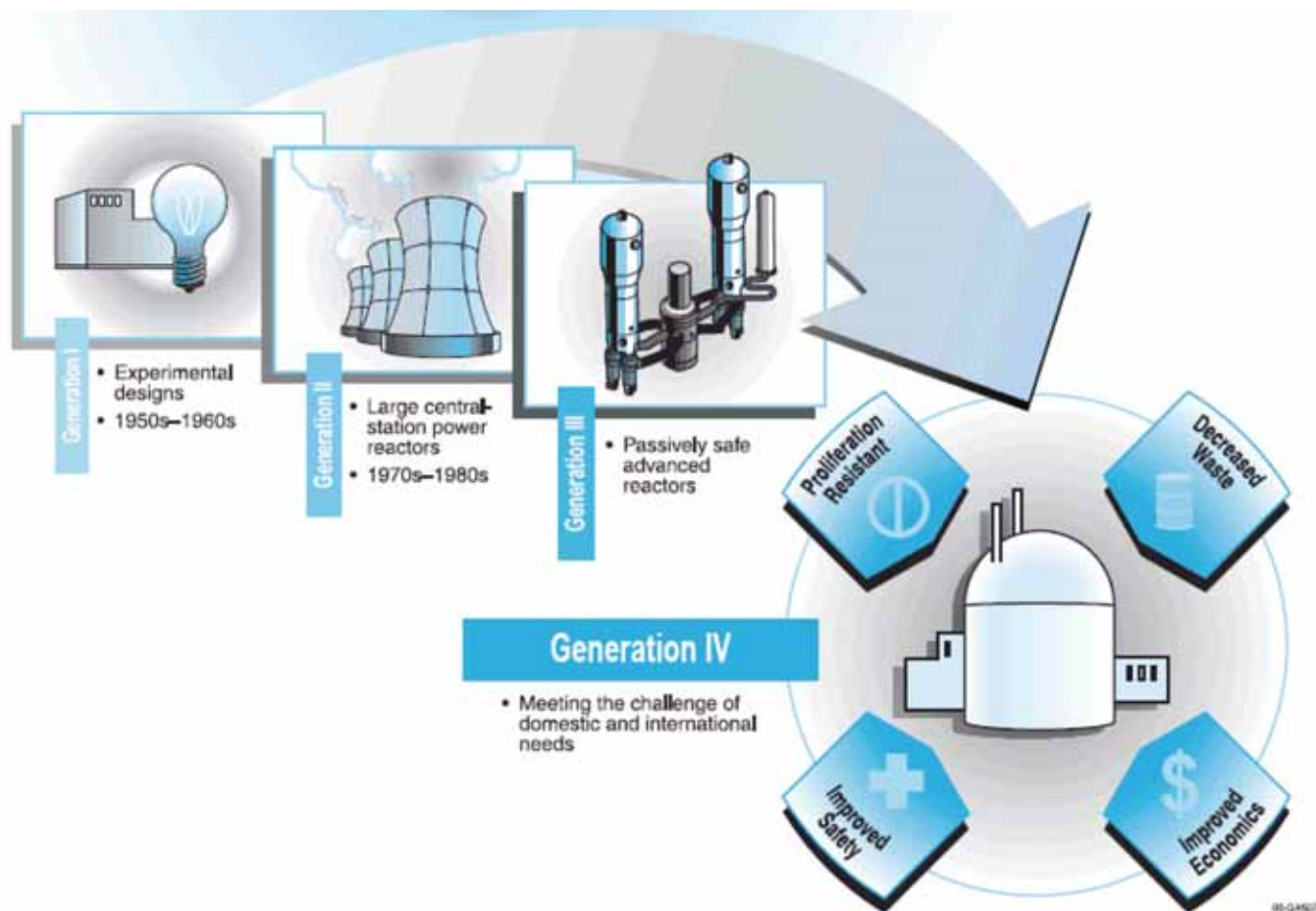
> Nuclear Power: The Department is working with industry and the NRC to lower the risks associated with the deployment of new nuclear power plants in the United States.



> Going to Pluto: Radioisotope Thermoelectric Generator (RTG) Delivery at Kennedy for the New Horizons Spacecraft that will be the first spacecraft to visit Pluto and its moon Charon.



> Looking Toward a New Generation: Artist rendering of a nuclear power reactor using Generation IV technologies to produce both electricity and heat for hydrogen production.



> Generation IV: Nuclear power has developed in stages, or generations. We are currently in the the third generation, researching technology for Generation IV.

— *How We Serve the Public*

The Department focuses on both the present and future energy needs of the country through three general activities: (1) development of new nuclear technologies; (2) maintenance of the Department's nuclear infrastructure; and (3) enhancement the nation's nuclear education infrastructure.

- Benefits realized from DOE's R&D activities include the promotion of nuclear power generation in the United States, advances in waste treatment processes that yield reductions in the volume and long-term toxicity of high level waste from spent nuclear fuel, technologies developed to reduce the long-term proliferation threat posed by civilian inventories of plutonium in spent fuel, and provision of proliferation-resistant technologies to recover the energy content in spent nuclear fuel.
- Additional benefits include supporting university research and training reactors, assisting outstanding nuclear science and engineering students, bringing nuclear technology education to small, minority-serving institutions, and supporting university nuclear engineering research.

— *Performance Against Key Targets*

During FY 2006, the Department:

- Focused on R&D activities associated with materials and fuels testing necessary for determining the design of the next generation nuclear power plant. Successful achievement of the target moves the program closer to selecting a design by FY 2011, which is necessary to the development and deployment of next-generation advanced reactors by 2025.
- Focused on R&D activities associated with thermo-chemical processes designed to demonstrate the viability of using heat and/or electricity from next generation nuclear energy systems to produce hydrogen at a cost competitive with other alternative fuels. Successful achievement of the target directly contributes to the goals of the Department's Hydrogen Posture Plan, and contributes to the design of the next generation nuclear power plant.
- Focused on R&D activities associated with advanced separations and fuels testing and initiating conceptual design work on an advanced fuel cycle facility. Successful achievement of the target increases our understanding of the nuclear fuel cycle, and will significantly contribute to the Department's FY 2008 decision on

whether to build a second geologic repository for high-level nuclear waste. These activities also contribute to the Global Nuclear Energy Partnership (GNEP), which seeks to enable expanded use of economical, carbon-free nuclear energy using a nuclear fuel cycle that enhances energy security while promoting non-proliferation.

- Focused on activities associated with achieving NRC certification of two advanced nuclear reactor designs, and the review and certification of industry baselines for combined Construction and Operating Licenses (COLs) for new nuclear power plants. Achievement of the annual target moves the program closer toward enabling an industry decision to deploy new nuclear power plants by 2010. The independent baseline review of the NuStart and Dominion COL projects was completed in June 2006, with the report issued in July 2006.

— Fossil Energy

The Department's fossil energy's activities are designed to ensure that the economic benefits from moderately priced fossil fuels and a strong domestic industry that creates export-related jobs are compatible with the public's expectation for exceptional environmental quality and reduced energy security risks.

— How We Serve the Public

Fossil fuels are an indispensable part of the U.S. and global energy mix. The Nation relies on fossil fuels for about 85 percent of the energy it consumes and forecasts indicate that this percentage will continue to increase in the future. The current U.S fossil research portfolio is structured to address this situation, providing a fully integrated program with mid- and long-term market entry offerings. The principal goal is the demonstration of a zero emissions, coal-based electricity generation plant that has the ability to co-produce low-cost hydrogen by 2015. The mid-term manifestation of that goal is expected to be the FutureGen project, a \$1 billion venture with industry that will combine electricity and hydrogen production. This project will use a combination of efficiency improvements and carbon capture and storage to eliminate virtually all emissions of air pollutants, including sulfur dioxide, nitrogen oxides, mercury and CO₂. This prototype power plant will serve as the test bed for proving the most advanced technologies, such as hydrogen fuel cells.



> Fuel Cells: GE prototype for radial stacked planar solid oxide fuel cells.

Fossil energy activities also focus on increasing the availability of natural gas and oil. To accomplish this goal, technologies will be developed to increase domestic supplies from unconventional gas resources. Government participation in this effort is required because independent operators, who drill the majority of domestic wells, do not have the resources to develop and implement such technologies. The Department also maintains the Strategic Petroleum Reserve, which guards against the adverse economic impact of a major petroleum supply interruption to the United States, helping to ensure the Nation's energy security.

— Performance Against Key Targets

During FY 2006, the Department:

- Conducted initial pilot scale slipstream field testing of technology capable of 90 percent mercury removal. Field testing is a critical step toward developing high performance mercury removal technology that help enable coal fired power plants to economically reduce emissions.



> HTDS: RTI's High Temperature Desulfurization System installed at the Eastman Chemical Company.

- Initiated construction and testing of advanced gas separation technologies. In FY 2006, the Gasification Technologies program moved gas separation, including ceramic membrane, hydrogen separation, CO₂ hydrate formation and ceramic membrane air separation, closer to commercialization, which will eventual lead to capital cost reductions of \$60-\$80 per kW from the baseline of \$1,200/kW for IGCC (Spell out ???) systems and efficiency improvements of >1 efficiency points.
- Performed pilot-scale testing and laboratory testing of different CO₂ capture technologies. This testing will lead to significant improvement in cost and performance, and initiate field sequestration activities within the Regional Partnerships leading to future sequestration tests.

- Improved cell performance and reliability through reduction of area specific resistance and interconnect reliability improvement to aid SECA ITs (Spell out???) in achieving technical requirements and cost goals.
- Developed industry standards for the design and operation of a commercial-scale advanced hydrogen separation system, and completed screening tests of a pre-engineering scale prototype unit to validate design parameters.

— Electricity Delivery and Energy Reliability

The Department leads national efforts to modernize the electric grid, enhance security and reliability of the energy infrastructure, and facilitate recovery from disruptions to the energy supply through its Office of Electricity Delivery and Energy Reliability. The Department performs critical functions, by working with industry, state and local governments, national laboratories and other entities to: (1) develop advanced technologies to improve the reliability of energy delivery; (2) guard against energy emergencies; and (3) improve energy reliability and efficiency.

— How We Serve the Public

The Department's electricity delivery and energy reliability activities benefit the public in several areas. In the field of R&D, work is conducted with national labs, private industry, and university and research institutions to develop technologies that will facilitate the modernization of the Nation's electricity delivery system. The Department also analyzes the condition and operation of the energy infrastructure to identify critical transmission bottlenecks, chokepoints, market failures and other issues that are barriers to modernizing and upgrading the national electric grid. Finally, the Department responds to energy emergencies, helps protect against terrorist attacks on the energy infrastructure and assists all levels of government and the private sector recover from energy supply disruptions. In 2005/2006 the Department responded to meet the following public needs;

- Responding to Hurricanes Katrina and Rita: The Department's focused on facilitating recovery in the aftermath of natural and man-made disasters. After Hurricanes Katrina and Rita, DOE staff accelerated vital infrastructure repairs, facilitated restoration of essential services, enabled resumption of port operations, and coordinated fuel delivery and ensured fuel distribution. While the Department's recovery role was widely applauded, several steps to improve upon response capabilities for FY 2006 and future years have been implemented.
- Securing the Electric Grid: The Department focuses on developing advanced technologies to secure vulnerable cyber assets in the energy sector. Power system reliability depends on extensive use of Supervisory Control and Data Acquisition (SCADA) networks and distributed control systems. Control systems are used throughout the U.S. energy sector to monitor and manage electricity flows in

transmission and distribution lines, and oil and gas flows in pipelines. SCADA networks combine computers, applications and sensors that perform the key functions that keep the power flowing for the essential appliances we rely on for refrigeration, lighting, heating, cooling, and communication. While all energy sectors have stepped up protective measures, perhaps no area is more vulnerable to malicious cyber and physical attack than these interconnected systems. To develop better control system technology for the future, the Department partnered with industry to create a Roadmap to Secure Control Systems in the Energy Sector in January 2006. The roadmap identified critical challenges and priorities with input from leading industry experts. This document lays out a groundbreaking strategy and vision to develop control systems that can survive an intentional cyber attack without loss of critical functions.

Research and development efforts in the area of control systems security have resulted in:

- Development of cyber assessments and recommendations for reducing vulnerabilities of three SCADA/EMS (spell out EMS) systems manufactured by major oil and gas sector producers;
- Partnerships with energy sector end-users to test and assess control systems cyber vulnerability using a Discovery Tool developed by the U.S. Department of Homeland Security; and
- Training for over 300 end-users on how cyber attacks are generated and how attacks can be diminished.

— Performance Against Key Targets

During FY 2006, the Department:

- Worked jointly with major electric utility companies in Albany and Long Island, New York and Columbus, Ohio to pilot a new high-temperature superconductive power line on the electric grid, in an effort to modernize electricity transmission and distribution in highly congested areas with high-energy demands. After 240 hours of testing the new lines, the results show a 50 percent reduction in loss of service lines which result in the ability to generate more reliable and efficient electric current to support more customers.
- Worked to prevent another blackout, similar to that in August 2003 which affected over 50 million customers, the Department and its partners are implementing the Eastern Interconnection Phasor Project. This project consists of developing and deploying a robust, widely-available, real-time monitoring and visualization system in the eastern portion of the North American power grid. This next generation system features Global Positioning System (GPS) technology, secure data communications, custom visualization, and advanced controls. The data from the "phasor" measurement instruments are being fed into data archiving and analysis locations to make the project's information readily available to the utilities. The visualization and control systems will allow operators to detect disturbances and take action before



> **Integrated Energy System:** An Integrated Energy system installed at the Fort Bragg 82nd Airborne Central Heating Plant.

problems cascade into widespread outages. During FY 2006, DOE spearheaded efforts that led to the installation and operation of 30 additional measurement units and two additional archiving and analysis locations for a cumulative total of 80 measuring units and eight archiving and analysis locations.

- Collaborated with the California Energy Commission and New York State Energy Research and Development Authority, to commission three pioneering energy storage projects. These projects will allow for the storage of electrical energy that will be available when needed. This will reduce transmission system congestion, help manage high energy demands, and make renewable electricity sources readily available and reliable.

- Developed a Combined Heat and Power system that operates at 70+ percent efficiency rate that has benefited the Dell Children's Hospital energy operating needs. The Dell Children's hospital has benefited from lessons learned at Fort Bragg U.S. military base and other Combined Heat and Power. The new system provides the Dell's Children Hospital with 100 percent of the thermal requirements to operate the hospital's power supply and cleaner, more reliable power that has a power backup to the electric grid. During a natural or man-made disaster the new system will keep the hospital operational and available to serve the public.

— *Performance Against Key Targets*

In FY 2006, the Department's PMAs:

Met each of their annual targets for system reliability, respectively, in accordance with key Control Performance Standards developed by the North American Electric Reliability Council (NERC). For many years the PMA's have measured their system reliability in accordance with NERC Control Performance Standards 1 and 2. As can be seen from the figure below, not only have acceptable ratings been achieved, but the electrical utility industry average has also been exceeded in each of the years shown.



> **Combined Heat and Power:** The new system provides the Dell's Children Hospital: 100 percent of the thermal requirements to operate the hospital's power supply; and cleaner, more reliable power that has a power backup to the electric grid.

Met each of their respective annual targets for repayment of Federal power investment to the U.S. Treasury. Meeting these annual targets demonstrates the PMA's commitment to meeting their obligations to U.S. taxpayers.

— Energy Information Administration

The Energy Information Administration (EIA) provides information on energy resources, reserves, production, demand, related financial information and energy technologies. EIA conducts survey and data collection operations, produces energy analyses and forecasts, and publishes data and analysis reports. Our customer base includes the Administration, Congress, Federal and State policymakers and agencies, the private sector, and International agencies.

— How We Serve the Public

EIA's contributions are critical for promoting sound energy decision-making and efficient energy market operations, as well as fostering general public understanding. These contributions subsequently drive the supply and delivery of reliable, affordable and environmentally sound energy, both now and in the future. There has been an increasing reliance on EIA's data and analyses by the Administration, the Congress, industry, and the public to understand and respond to

current and emerging changes in various energy sectors. These changes result from actions such as energy industry restructurings, demographic changes, new fuel standards, and legislative initiatives. For example, in the wake of high oil and natural gas prices, exacerbated by Hurricanes Katrina and Rita, so far during FY 2006 (through June 30) EIA has testified 14 times before congressional committees, and has conducted more than 30 briefings for Members of Congress and/or their staffs. In addition, EIA has responded to dozens of short-turnaround requests from the White House, other Federal departments, and Congressional staff for energy data and analysis. Our information is frequently referenced by news organizations both large and small, and our website averaged over 1.5 million user sessions per month in FY 2006.

— Performance Against Key Targets

During FY 2006, the Department's EIA:

- Achieved a "satisfied" or "very satisfied" rating from 90 percent of customers surveyed about the quality of EIA information, meeting the annual customer satisfaction target. EIA maintains this effectiveness through regular monitoring of customer satisfaction, something it has been doing for the past ten years.

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SCIENCE

— ADVANCING SCIENTIFIC UNDERSTANDING —

TO PROTECT OUR NATIONAL AND ECONOMIC SECURITY BY PROVIDING WORLD-CLASS SCIENTIFIC RESEARCH CAPACITY AND ADVANCING SCIENTIFIC KNOWLEDGE.

Another important mission of the Department is to deliver the remarkable discoveries and scientific tools that transform our understanding of energy and matter and advance the national, economic, and energy security of the United States.

The Department is the single largest supporter of basic research in the physical sciences in the United States, providing more than 40 percent of total funding for this area of national importance. It manages and is the principal Federal funding agency of the Nation's research programs in high-energy physics, nuclear physics, fusion energy sciences, basic energy sciences, biological and environmental sciences, and computational science. As the Federal Government's largest single funding source of materials and chemical sciences, the Department supports unique and vital parts of U.S. research in climate change, geophysics, genomics, life sciences, and science education.

The Department manages 10 world-class laboratories, often called the "crown jewels" of our national research infrastructure. This national laboratory system, started over a half-century ago, is the most advanced and comprehensive research system of its kind in the world.

Other science activities include oversight of the construction and operation of some of the Nation's most advanced research and development (R&D) user facilities, located at national laboratories and universities. These include particle and nuclear physics accelerators, synchrotron light sources, neutron scattering facilities, supercomputers and high-speed computer networks. In FY 2006, these facilities were used by more than 19,000 researchers from universities, government agencies and private industry.

> General Goal 5: World-Class Scientific Research Capacity

Provide world-class scientific research capacity needed to ensure the success of Department missions in national and energy security; to advance the frontiers of knowledge in the physical sciences and areas of biological, medical, environmental, and computational sciences; or to provide world-class research facilities for the Nation's science enterprise.

President Bush's American Competitiveness Initiative specifically identifies three key Federal entities – the Office of Science (OS), the National Science Foundation and the Department of Commerce's National Institute for Standards and Technology that support basic research programs in the physical sciences and engineering. This competitiveness initiative will double the Federal commitment to the most critical basic research programs in the physical sciences over the

"Today's revolutionary technologies and many of our most popular consumer products have roots deep in basic and applied research. Long before there were computers or the Internet, scientists were unlocking the secrets of lasers, semiconductors, and magnetic materials upon which today's advance applications were built. This enterprise was fueled in large part by Federal investment in basic research that was necessary but not necessarily profitable for the private sector to undertake over the long term."

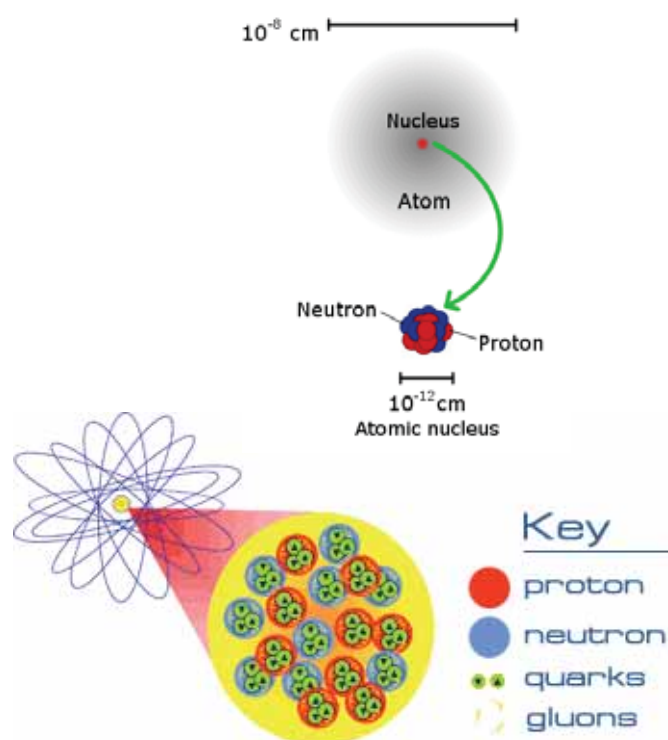
— American Competitiveness Initiative, February 2006

— SCIENCE PERFORMANCE SCORECARD — (\$ in millions)

General Goal and Score	Program Costs		Program Goals and Scores		FY 2006 Budgetary Expenditures Incurred *				Performance of Annual Targets	
	3Q 2006	FY 2005			Met (100%)	Not Met (≥ 80%)	Not Met (< 80%)	Undetermined		
5. World-Class Scientific Research Capacity	\$2,517	\$3,565	High Energy Physics	R	\$625	3	0	2	0	
			Nuclear Physics	G	\$305	3	0	0	0	
			Biological and Environmental Research	G	\$658	7	0	0	0	
			Basic Energy Sciences	G	\$1,150	5	0	0	0	
			Advanced Scientific Computing Research	G	\$294	2	0	0	0	
			Fusion Energy Sciences	G	\$254	4	0	0	0	
Total Cost	\$2,517	\$3,565			\$3,286	24	0	2	0	

* Includes capital expenditures but excludes such items as depreciation, changes in unfunded liability estimates and certain other non-fund costs, and allocations of Departmental administration activities.

next 10 years and focuses Federal support on increasing the quality of math and science education for school children, and universities that provide world-class education and research opportunities. The Department reaches out to America's youth in grades K-12 and their teachers to help improve students' knowledge of science and mathematics and their understanding of global energy and environmental challenges. The Department continues to be a principal supporter of graduate students and postdoctoral researchers early in their careers. Almost 50 percent of its research funding goes to support research at more than 300 colleges, universities, and institutes nationwide. By investing in the future, the Department is building the human and technological foundations that will build upon current research successes.



> Matter: Scientists now know the building blocks of matter. Each atom is made of constituent protons, electrons, and neutrons, a belief debated among ancient Greek philosophers thousands of years ago. Within each atom, there is a central nucleus of protons and neutrons surrounded by electrons (the gray area in the picture). The electrons a type of lepton, are bound to the nucleus by exchanging photons, a type of boson or force carriers. Protons make up the nucleus. Protons and neutrons make up the nucleus, called nucleons.

We now know that these nucleons can be subdivided even further, into quarks. For example, both protons and neutrons consist of three quarks. Gluons, also force carriers, hold the quarks together. So, leptons, quarks, and force carriers are the elementary building blocks of all known matter. The **Standard Model** is the quantum theory that describes these fundamental particles and their interactions.

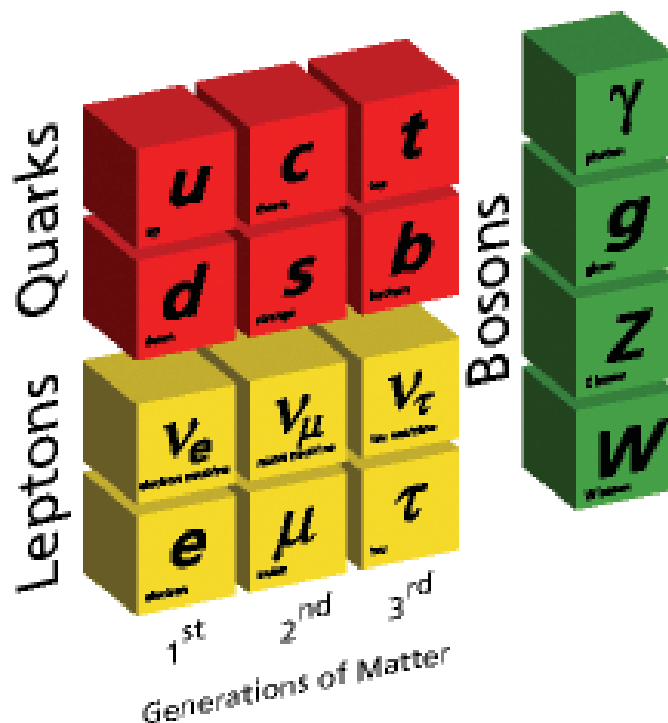
— High Energy Physics

— How We Serve the Public

Since the beginning, humans have asked the fundamental question “how did we begin?” The “earth, air, fire, and water” of the ancient Greeks has given way to the fundamental subatomic particles known today, while scientists continually learn and understand more and more about the makeup of the universe. In the early 20th century, scientific knowledge bounded forward. Scientists learned that the universe is expanding, found that space-time is curved, and discovered the quantum nature of matter. Over the last 30 years the Standard Model was developed, a theory of particles and forces that fuses special relativity and quantum mechanics. This theory says that all matter consists of combinations of just 12 fundamental particles affected by 4 basic forces. It also predicts the existence of a space-permeating field (still not observed) that gives mass to matter.

The Standard Model has survived many experimental tests, but cannot be complete; since it does not explain 95 percent of the universe. Consequently, one of the great mysteries of science is how the universe originated and evolved. Experiments conducted at the Department's high energy physics' accelerators seek evidence for “unification”: the melding of today's diverse patterns of particles and interactions into a much simpler picture at high particle energies, like those that prevailed in the very early universe. The Department is a world leader in the construction and development of advanced particle accelerators and detector

Elementary Particles



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technologies that empowers the world scientific community to make new discoveries in physics and beyond.

In FY 2006, the Department:

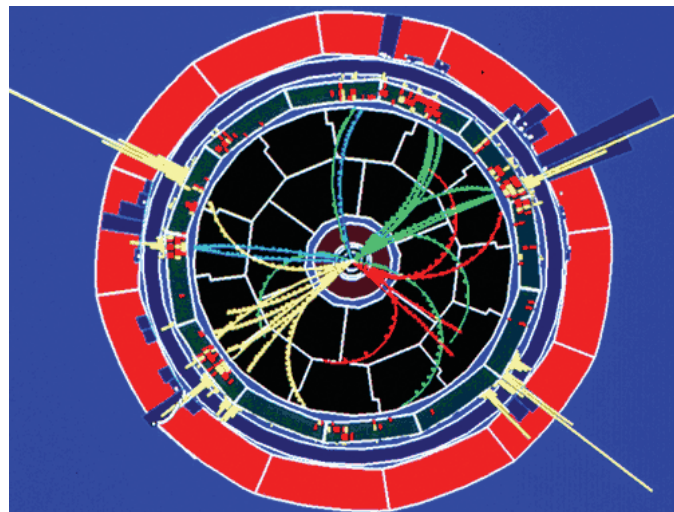
- Operated accelerator facilities at the Fermi National Accelerator Laboratory and the Stanford Linear Accelerator Center and participated in construction of a new accelerator at the Conseil Européen pour la Recherche Nucléaire (CERN) (<http://public.web.cern.ch/public/>) laboratory in Europe, scheduled to begin operations in FY 2007.
- Supported approximately 2,400 researchers in the study of fundamental particles of matter, their interactions, and their roles in the origin and development of our universe.

Future plans include collaborations with other countries and other U.S. agencies in particle physics. An international linear collider would greatly enhance our ability to answer key fundamental scientific questions, and a space-based telescope experiment, conducted jointly with NASA, would promote the investigation of the universe for the past 10 billion years.

— Performance Against Key Targets

In FY 2006, DOE researchers at Fermi:

- Delivered integrated data to the Collider Detector and D-Zero detector within 20 percent of the FY 2006 baseline estimate (540 inverse picobarns). Scientists have long known that particles have “mass.” But where does mass come from? At the Fermi National Accelerator Laboratory DOE researchers are searching for one, the postulated source of mass, (see inset). The search for the Higgs Boson has been a significant DOE activity for many years. This data and related activities may reveal undiscovered principles of nature that will reshape our view of the universe.
- Measured the total amount of data (in protons-on-target) delivered to the Main Injector Neutrino Oscillation Search (MINOS) detector within 20 percent of the FY 2006 baseline (0.8×10^{20}). The MINOS experiment studies neutrino transformation. The MINOS “near” detector, located at Fermilab, records the composition of the neutrino beam as it leaves the Fermilab site. The MINOS far detector, located in Minnesota, half a mile underground, again analyzes the neutrino beam. For the first time in 2006, DOE scientists sent a high-intensity beam of neutrinos from the lab's site in Batavia, Illinois, to a particle detector in Soudan, Minnesota. The scientists observed the disappearance of a significant fraction of these neutrinos. The observation is consistent with an effect known as neutrino oscillation, in which neutrinos change from one kind to another.
- DOE researchers strive to discover how the imbalance of matter and antimatter, called charge-parity (CP) asymmetry, occurred at the beginning of the universe. Research on CP asymmetry is conducted primarily at the Stanford Linear Accelerator Center and due to

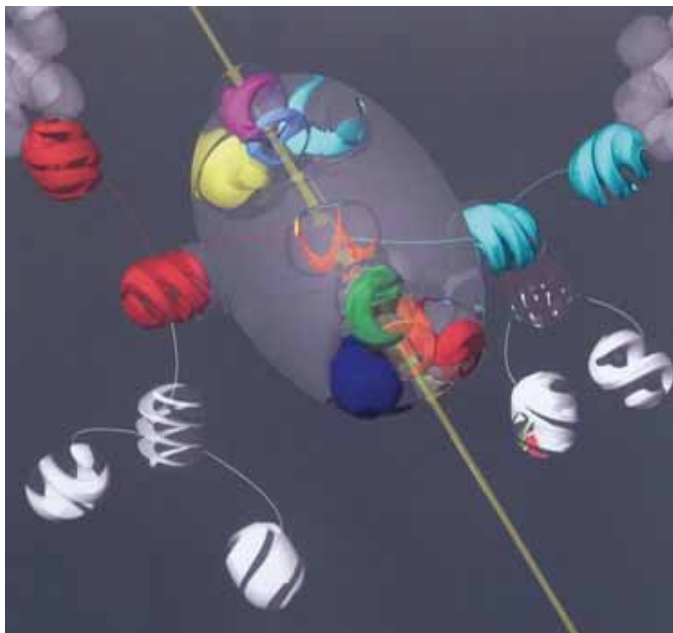


> Higgs boson and Z boson: This image shows a candidate for the associated production of a Higgs boson and Z boson. The candidate Higgs decays to a bottom quark and anti-bottom quark, which in turn decay to the jets denoted by the green and yellow tracks. The Z boson also decays to two jets denoted by the red and blue tracks.

The Standard Model also describes the interactions of quantum fields such as the Higgs Field. The Higgs Field exists everywhere and is unavoidable. When any particle comes into contact with the Higgs Field, it gains mass. Different particles interact with the Higgs field with different strengths, so some particles are heavier (larger mass) than others. Unfortunately, we cannot precisely locate the Higgs Field. Yet, in physics, every quantum field has an associated particle, and the Higgs Field is no different. Its associated particle is the Higgs Boson. So, then, scientists must instead search for the Higgs Boson, and its existence will prove that the Higgs Field exists. The yet-to-be-discovered Higgs Boson is a particle that also gain mass from the Higgs Field. It in turn interacts with the heaviest elementary particles we know, especially the top quark. This preference allows scientists to search for this elusive Higgs Boson. Discovery of the Higgs Boson will profoundly affect our understanding of the universe and complete the Standard Model of today.

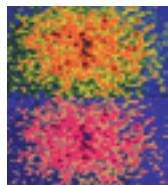
unscheduled facility down time caused by vacuum leaks during the first two quarters of FY 2006, research work was delayed. The facility restarted in mid-April 2006 and met the following performance targets:

- Delivered integrated data to the BABAR detector within 20 percent of the FY 2006 baseline estimate (80 inverse femtobarns). For each particle of matter there exists an equivalent particle with opposite quantum characteristics, called an anti-particle. Particle and anti-particle pairs can be created by large accumulations of energy and, conversely, when a particle meets an anti-particle they annihilate with



> Looking Forward: Industrial designer Jan-Henrik Anderson, working with particle physicists, portrays the collision of a proton and an anti-proton in the Fermilab Tevatron accelerator.

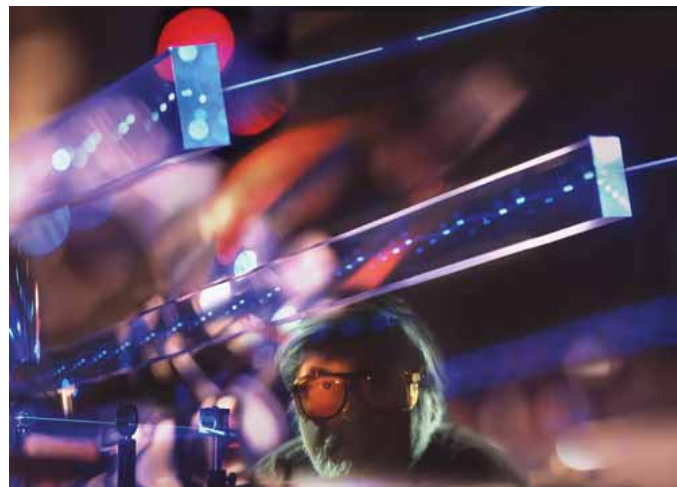
High Energy Physics (HEP) has long been a leader in Higgs research. Much of this critical work was done at the Tevatron at Fermi National Accelerator Laboratory. However, the Tevatron is scheduled to be phased out by the end of the decade, and HEP is preparing to focus its efforts on the Large Hadron Collider (LHC) at CERN with a planned start-up in 2007.



> ??????:

intense release of energy ($E=mc^2$). At the time of the big-bang, the large accumulation of energy must have created an equal amount of particles and anti-particles. But in everyday life we do not encounter anti-particles. The purpose of this ongoing experiment is to study and understand the absence of anti-particles in everyday life.

- Achieved greater than 80 percent average operation time of the scientific user facilities as a percentage of the total scheduled annual operating time. A key service provided to the scientific community by the DOE is to optimize the availability of scientific user facilities. In this case, the Office of Science ensures that the Fermilab Tevatron near Chicago and the Stanford Laboratory Linear Accelerator B-Factory are available to the scientific community for approved experiments for the maximum allowable time during the fiscal year.



> Laser Tests: Physicist watches laser tests on crystal detectors at SLAC.

The Stanford Linear Accelerator Center was established by HEP, but upon completion of the Linac Coherent Light Source (LCLS), scheduled for 2009, SLAC operations will be overseen by the Basic Energy Sciences (BES) program. The LCLS will be the world's first x-ray free electron laser.

— Nuclear Physics

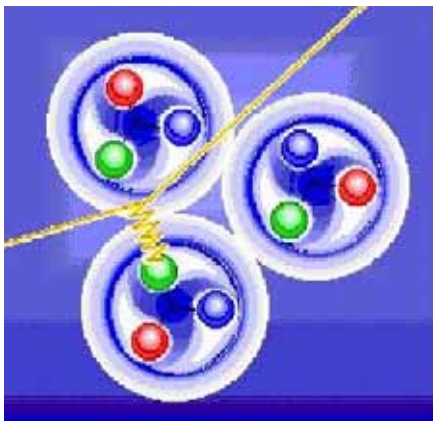
— *How We Serve the Public*

Nuclear physics today extends from the quarks and gluons that form the substructure of protons and neutrons (which were once viewed as elementary particles), to the most dramatic of cosmic events supernovae. Nuclear physicists intend to experimentally re-create the beginning of the universe, the original atomic particles, and the behavior of matter under extreme conditions to understand nuclei and nuclear reactions. The Department's Office of Nuclear Physics supports research that is relevant to other scientific fields for understanding the origin and evolution of the universe and the world we live in and for applications for society in the future. The program builds and supports world-class scientific facilities and state-of-the-art instruments necessary to carry out its basic research agenda. Scientific discoveries at the frontiers of nuclear physics further the nation's energy-related research capacity, which in turn, provide for the nation's security, economic growth and opportunities, and improved quality of life.

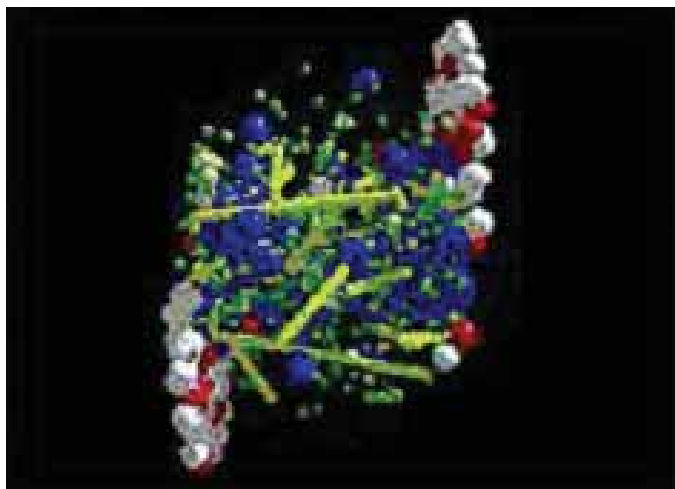
— *Performance Against Key Targets*

During the past fiscal year, DOE scientists used electron beams and polarized proton collisions to research the quark and gluon substructure of protons and neutrons. The majority of this research is conducted at National User Facilities, such as the Argonne Tandem Linac Accelerator System (ATLAS) at Argonne National Laboratory, the Holifield Radioactive Ion Beam Facilities (HRIBF) at Oak Ridge National

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> Quarks in Quantum Chromodynamics: According to the Standard Model, the force carriers bind quarks together within the atomic nucleus, and these quarks are the building blocks of proton, neutrons, and the nucleus of the atom. Quantum Chromodynamics (QCD), the theory of the strong interaction and part of the Standard Model, states that every quark has one of these type of charge, called “red,” “green,” or “blue” (see the figure). These color names are just names, and the quarks are not really colored. Each particle has a related antiparticle, so the quarks are balanced by antiquarks. They are either “anti-red,” “anti-green,” or “anti-blue.” As in a magnet, like (colors) repel and unlike (colors) attract. The attraction force between a color and its anti-color is especially strong. This is the interaction of the force carrier called a gluon. However, gluons have a limiting characteristic. As the distance between two quarks increases, the gluon force also increases. A new gluon is created when the force becomes too strong. As you keep adding energy to separate the quark from its anti-quark, eventually you put enough energy in the bonded pair to create a second quark–anti-quark pair ($E=mc^2$)



> Gold Collision: Computer simulation of a collision between two gold nuclei.

Laboratory, the Continuous Electron Beam Accelerator Facility (CEBAF) at Thomas Jefferson National Accelerator Facility, and the Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory. Further research in nuclear physics will result in the development of increasingly precise tools to help us understand fundamental issues of nuclear physics.

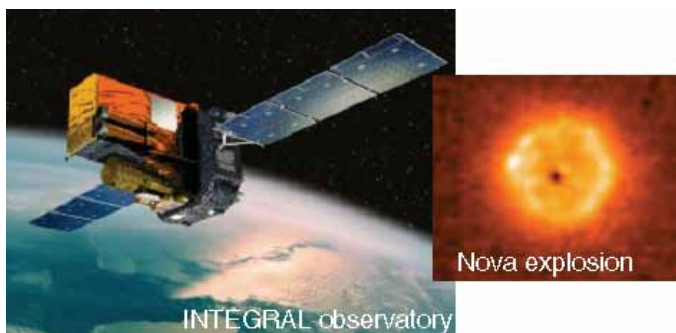
In FY 2006, the Department:

- Recorded at least 80 percent of the weighted average number (FY 2006 baseline was 7.5) of billions of events recorded at the ATLAS and HIRF respectively. The high energy ion beams generated by ATLAS allows DOE scientists to study the stability and structure of nuclei as many-body systems built of protons and neutrons bound by the strong force and explore the origin of the chemical elements and their role in shaping the reactions that occur in the cataclysmic events of the cosmos. HIRF produces beams of radioactive nuclei with a wide range of easily variable energies and intensities sufficient to allow scientists the opportunity to make the first direct measurements of the nuclear reactions that power novae, X-ray bursts, and other stellar explosions.
- Recorded at least 80 percent of the weighted average number (FY 2006 baseline was 2.89) of billions of events recorded by experiments in Hall A, Hall B, and Hall C at CEBAF. DOE Scientists are peering deep inside the nucleus to uncover more elementary building blocks of matter. Researching how quarks are formed, how they combine to make other particles and what rules govern these interactions will help physicists understand the most fundamental particles and forces in nature.
- Achieved at least 80 percent average operation time of the scientific user facilities as a percentage of the total scheduled annual operating time. To meet the needs of the research community, optimizing national user facilities on-line availability is a top priority of the Office of Science.

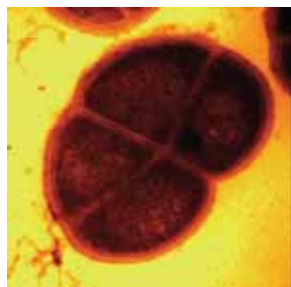
— Biological and Environmental Research

— How We Serve the Public

The Department has unearthed new mysteries in biology using genomic research and DNA sequencing. DOE research focuses on understanding biological and environmental systems, from the workings of tiny microbes to global climate change. Microbes and plants offer great hope as future energy resources and for sequestering carbon if we determine how these true natural resources, microbes and plants can work for us. The Department is tackling issues such as energy production, environmental cleanup and carbon sequestration, and knows that the biological secrets held within Earth’s microbes, and plants can be mighty engines of scientific progress.



> A View of Nature: At HRIBF measurements of thermonuclear reaction rates of the unstable isotope of fluorine (F^{18}) have revised our understanding of how stars undergo violent nova explosions. The revised rates demonstrate that satellite observatories can see gamma-rays from these explosions over twice the volume of space as previously thought. This is an example of how studying some of Nature's tiniest objects, the nuclei of atoms, can tell us about some of Nature's largest ones, stars and their spectacular explosions.



> Deinococcus radiodurans: A bacterium that scientists claim is the most radiation-resistant organism on earth.

Imagine something that loves to eat nuclear waste. That waste is a gourmet meal for one type of bacteria, *Deinococcus radiodurans*. In the 1950's, scientists discovered this bacterium in a can of spoiled ground beef that had been "sterilized" with radiation. Further study showed that the remarkable DNA repair processes of *D. radiodurans* permit the microbe to survive amazingly large amounts of radiation, amounts that would kill most organisms, including humans. In about a day, *D. radiodurans* can repair its own radiation-shattered genome. DOE proceeded to sequence the microbe's DNA because of its potential usefulness in cleaning up radioactive and toxic waste sites. In 1999, researchers completed the DNA sequencing, and now scientists are exploring genetic manipulation that would expand *D. radiodurans*' extraordinary capabilities for removing toxic wastes from contaminated sites, by encoding proteins for heavy metal transformation to a more benign biomass and/or allowing the breakdown of harmful organic solvents such as toluene. The repair capability of *D. radiodurans* can also provide scientists with insight into defects in human cellular processes and the development of cancers.

DOE researchers are working to develop a predictive understanding of complex biological, Earth, and environmental systems. This world-class research will lead to new developments in energy production, environmental management, and health sciences.

The following questions address specific long term goals in scientific advancement of the biological and environmental research program:

- Are there science-based solutions for bioenergy production like cellulosic ethanol and biohydrogen?
- How can we develop computational models that guide our strategies to produce cellulosic ethanol, clean up waste, sequester carbon, and understand global change?
- What climate data and models do researchers and policymakers need?

— Performance Against Key Targets

Energy and environmental issues face us all. In this day and age, can we discover enough about biological systems to solve these challenges? Our knowledge is sparse concerning most microbial and plant systems. DOE research looks at the most basic processes of these amazing organisms and promises to make a safer, stronger, healthier and more secure world through the science of genomics and systems biology.

In FY 2006, the Department:

- Increased the rate of DNA sequencing (FY 2006 baseline was 30 billion base pairs) of base pairs of high quality (less than one error in 10,000 bases) DNA microbial and model organism genome sequence produced annually. DOE national laboratories led an international collaboration to decode the first tree genome, with the actual sequencing work performed at the DOE Joint Genome Institute's Production Genomics Facility. With a genome size of just over 500 million letters of genetic code, it is the most complex genome to be sequenced and assembled by a single public sequencing facility. The analysis of the biological potential locked in the complete poplar DNA sequence was published in the summer of 2006, providing researchers with a critical resource to develop faster growing trees, trees that produce more biomass for conversion to biofuels such as ethanol, and trees that can sequester more carbon from the atmosphere or be used to clean up waste sites.
- Developed a predictive model for contaminant transport that incorporates complex biology, hydrology, and chemistry of the subsurface. The model was validated through field tests. Historically, weapons activities across our nation harmed the environment and prompted a massive environmental cleanup. DOE is responsible for the management of over 3,000 waste sites, 50 percent of which have soils, sediments, or groundwater contaminated with radionuclides or metals. The Department needs to develop more technological expertise to understand these contaminated sites and predict the behavior of the contaminants both economically and scientifically. Studies focus on understanding and predicting the fate, transport, and long-term stability of these contaminants in the environment.

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- Produced a new continuous time series of retrieved cloud properties at each Atmospheric Radiation Measure Program site and evaluated the extent of agreement between the climate model simulations of water vapor concentration and cloud properties and measurements of these quantities on time scales of one to four days. DOE research to predict climate change and to develop accurate advanced climate models requires that we explore the roles of oceans, the atmosphere; sea, ice, and land masses on climate; and the role of clouds in controlling solar and terrestrial radiation. DOE scientists work to predict climate changes decades to centuries in the future. They also study the impacts of excess carbon dioxide in the atmosphere from human sources, including energy use, on Earth's climate and ecosystems to develop possible mitigation strategies. The Department's research helps policymakers develop science-based energy policy in the U.S. and around the globe. Climate change research defines DOE's role in the U.S. Global Change Research Program, the Climate Change Research Initiative, and the Climate Change Science Program.
- Worked to advance blind patient sight: Completed design of a nominal 256 microelectrode array retinal prosthesis. Constructed and tested individual components for electronic integrity and biocompatibility in vitro and animal test systems. The newest imaging technologies have increased sensitivity, ease of use, and patient comfort. The Department's research allows biomimetic devices such as an artificial retina (see following device) that will help the blind to see. DOE researchers are also developing medical diagnostic and therapeutic technologies to treat and diagnose disease, conduct non-invasive medical imaging, and advance biomedical engineering.

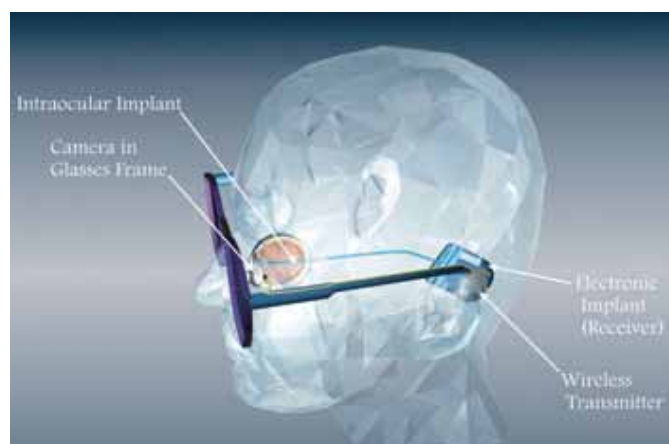
— Basic Energy Sciences

— How We Serve the Public

Advances in materials and the chemical sciences can result in the more efficient production of energy with less environmental impact. For example, the discovery of new magnetic materials; high strength, lightweight alloys and composites; novel electronic materials; and new catalysts occurred because of these advances, and new energy technologies prompted the growth of the U.S. economy over the past half-century. The Department's research in basic physical sciences makes such advances possible.

The world of the nanoscale exhibits radically different properties of matter than the macroscale. Nanoscale R&D allows for the construction of extremely tiny structures from just a few atoms or molecules and the potential creation of useful devices such as computers that can store trillions of bits of information. Nanoscale structures can enhance materials to make them super-lightweight and ultra-strong. DOE is a leader in nanoscale research that spans materials sciences, physics, chemistry, biology, and engineering.

Molecular processes are also research emphases of the Department. Scientific discoveries in the basic energy sciences stimulate progress



> Artificial Retina: A camera on the patient's glasses is able to capture images, which are transmitted via radio waves to a receiver that is implanted behind the patient's ear.

Over 1.3 million Americans can no longer see because of age-related macular degeneration or retinitis pigmentosa. Restoring their sight is a focus of the Artificial Retina Project. The artificial retina implant being developed has pieces both inside and outside the eye. Patients wear glasses that are outfitted with a miniature camera. The camera captures images for the eye and sends the data to a microprocessor which converts the image data to an electronic signal behind the person's ear. An antenna in the lens receives the data and transmits the data to a receiving antenna implanted in the eye (the intraocular implant). The signal then travels along a tiny wire to the electronic retinal implant. The image signal stimulates the other retinal cells to send the image along the optic nerve to the brain, where the signal is interpreted as sight. The blind person can then see simple images.

toward more efficient, affordable, and cleaner energy technologies and eventually their wider use. As they conduct their research, DOE scientists probe fundamental questions such as:

- How can we control chemical reactivity, the making and breaking of chemical bonds, to produce energy and desired materials while eliminating unwanted byproducts?
- How can we design, model and exploit complex systems which are composed of large numbers of interacting components and/or components operating at different spatial or temporal scales such as novel magnetic or superconducting materials?
- How can we efficiently assemble molecular-scale structures? How do living organisms construct complex assemblies, and can we apply these approaches to engineer useful devices and materials?
- What new, useful properties do materials display as we move from the classical or macroscopic world to objects composed of a few to a few thousands of atoms or molecules?

- What range of optical, mechanical, catalytic, electrical, tribological, and other properties can be achieved by designing devices and materials at the molecular scale?

Scientific advances in basic energy sciences allow us to observe, characterize, manipulate, and model matter at the atomic or molecular scale and find answers to such questions. The Department maintains and operates scientific facilities that include light sources, nanoscale science research centers, electron beam microcharacterization centers, high flux neutron sources, and a combustion research facility. These facilities are found at the Stanford Linear Accelerator Center, Lawrence Berkeley National Laboratory, Oak Ridge National Laboratory, Argonne National Laboratory, Brookhaven National Laboratory, Sandia National Laboratories, and Los Alamos National Laboratory.



> The Advanced Photon Source (APS): APS at the U.S. Department of Energy's Argonne National Laboratory provides this nation's most brilliant x-ray beams for research in almost all scientific disciplines.

These x-rays allow scientists to pursue new knowledge about the structure and function of materials in the center of the Earth and in outer space, and all points in between. The knowledge gained from this research can impact the evolution of combustion engines and microcircuits, aid in the development of new pharmaceuticals, and pioneer nanotechnologies whose scale is measured in billionths of a meter, to name just a few examples. These studies promise to have far-reaching impact on our technology, economy, health, and our fundamental knowledge of the materials that make up our world.

The APS electron accelerator and storage system are the first critical steps in producing the high-energy x-rays that are used for frontier research.



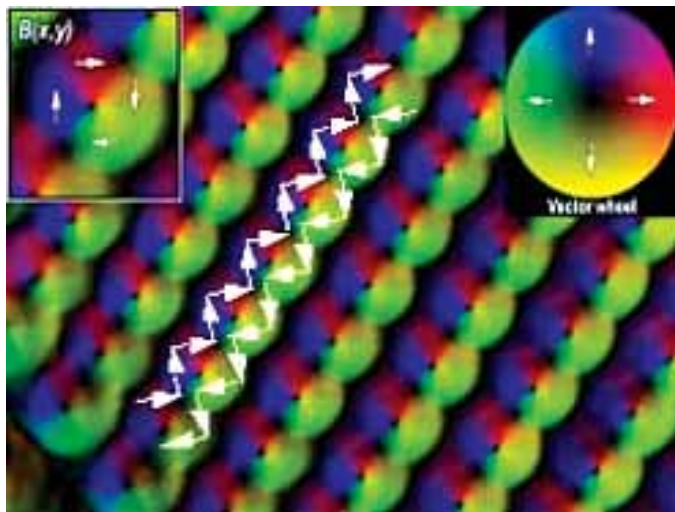
> Seeing the Unseen: Long before we knew about atoms and fundamental particles, we wanted to see very small, microscopic things. Advances in technology over decades and millennia allow us to explore a previously invisible world. The first microscopes, some dating back to Europe hundreds of years ago, enable scientists to see individual atoms. However, we are limited in how small we can see. An atom is normally tenths of a nanometer across, and the laws of physics limit the smallest view to about a few hundred nanometers. We must use other tools one thousand times stronger to see atomic particles. X-rays, electrons, and neutrons permit scientists to look further than before. These tools are also the foundations for major scientific user facilities in materials research and related disciplines. The BES synchrotron radiation light sources, electron-beam microcharacterization centers, and neutron scattering facilities are revealing the atomic world.

— Performance Against Key Targets

In FY 2006, the Department:

- Demonstrated improvements in temporal and spatial resolution capabilities.

Nanomaterials offer the possibility of revolutionary advances in material properties and behaviors. For this reason, research at the nanoscale is critical to these challenges. Four thrust areas are: (1) attain a fundamental scientific understanding of nanoscale phenomena, particularly collective phenomena; (2) achieve the ability to design and synthesize materials at the atomic level to produce desired materials at the atomic level to produce materials with desired properties and functions; (3) take full advantage of major use facilities, and (4) develop experimental characterization techniques and theory/modeling/simulation tools necessary to drive the nanoscale revolution. Improving temporal and spatial resolution is critical to achieving these goals.



> TEM-derived magnetic induction map of Ni

nanodot region delineated: Future-generation functional magnetic materials will be based on multi-phase and multi-component systems designed to interact with one another, and will probably all be nanomaterials.

Basic Energy Sciences is creating and supporting five new Nanoscale Science Research Centers (NSRCs) to synthesize, process, and fabricate nanoscale materials. These user facilities will be located near existing user facilities to take advantage of additional characterization and analysis tools. NSRCs will provide needed research and support capabilities not presently available to the research community, in addition to supporting the mission needs of the Department.

- Achieved an average scheduled operating time of greater than 90 percent for its scientific user facilities. DOE is committed to supporting seven world-class scientific user facilities at maximum operating levels and designing, fabricating, and constructing new facilities to understand and manipulate new materials. New facilities include the Spallation Neutron Source, the five Nanoscale Science Research Centers; and the Linac Coherent Light Source. The Spallation Neutron Source was completed in FY 2006 and is the world's most

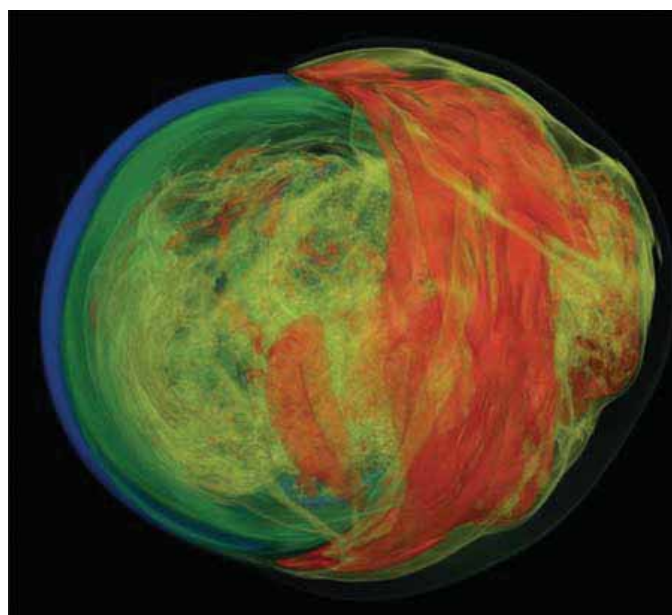
powerful neutron scattering facility for studying the structure and dynamics of materials using neutrons. This user facility enables researchers from the United States and abroad to study the science of materials that forms the basis for new technologies in telecommunications, manufacturing, transportation, information technology, biotechnology and health.

— Advanced Scientific Computing Research

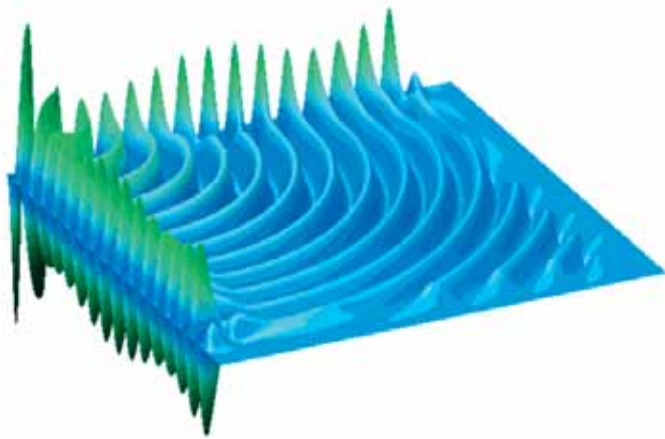
— *How We Serve the Public*

Technological advances in computer-based simulation, led by the Department's Office of Advanced Scientific Computing Research (ASCR), enable researchers to predict the behavior of complex systems. Understanding basic processes, such as fluid flow and molecular structure, is enhanced through advances in computational modeling. R&D in modeling and simulation allows researchers to explore the interiors of stars, learn how protein machines work within living cells, and make unique catalysts and high-efficiency engines.

The Department leads computational science by constructing and maintaining modern, world-class, and high-performance computational and networking facilities, as well as the mathematical and computer science research, that enable DOE to address its



> Terascale Supernova Initiative (TSI) Project: It is not yet clear exactly what processes make stars explode. Today, nearly four dozen scientists at nine different institutions are tackling this problem with funding from SciDAC in this TSI project. The multidisciplinary team of astrophysicists, nuclear physicists, applied mathematicians, and computer scientists has already developed some of the most sophisticated supercomputer simulations of the first moments of the death of the largest stars, and has unveiled some surprising phenomena deep within the dying stars.



> Radial Wave: A representative radial wave function of two electrons scattered in the collision of an electron with a hydrogen atom.

Computational science demonstrates our leadership in scientific applications of high-performance computing. ASCR's computational capabilities link applied mathematics, computer science, and high-performance networks, advancing our scientific knowledge and fulfilling the DOE mission, meeting energy and national security needs.

science, energy, and national security missions. ASCR supports basic research in applied mathematics and computer science and partners with other DOE programs to support research in advanced materials, nanoscience, chemical, and plasma sciences, high energy and nuclear physics, environmental and atmospheric research, structural biology, medical research and technology development.

A major initiative is the Scientific Discovery through Advanced Computing (SciDAC) effort, which expands the partnerships between ASCR and the other DOE programs to strengthen the role of high-performance computing in furthering science and advancing the Department's missions. To date, the SciDAC program has contributed to a number of areas including: climate modeling and prediction, plasma physics, particle physics, accelerator design, astrophysics, chemically reacting flows, and computational nanoscience.

Scientific insights from new computational tools, models, and simulations allow us to contribute to energy technologies, environmental quality, and national security. Through advances in scientific computing, we can begin to explore and predict climate change or understand complex biological systems. Scientific computing research activities occur at 65 academic institutions and ten DOE laboratories. In addition, more than 2,400 university scientists, government agencies, and U.S. companies use ASCR-funded high-performance computers each year.

— Performance Against Key Targets

In FY 2006, the Department:

- Improved computational science capabilities by achieving an average 50 percent increase in computer effectiveness (either by simulating the same problem in less time or simulating a larger problem in the same time) of a subset of application codes within the SciDAC efforts.

The Department maintains its world leadership in numerous areas of computational science through investments in high-performance computing and networking resources and the underlying basic research in applied mathematics and computer science. These efforts are carried out at facilities such as the National Energy Research Scientific Computing Center, ESNNet, and the Leadership Class Computing facilities at the Oak Ridge and Argonne National Laboratories.



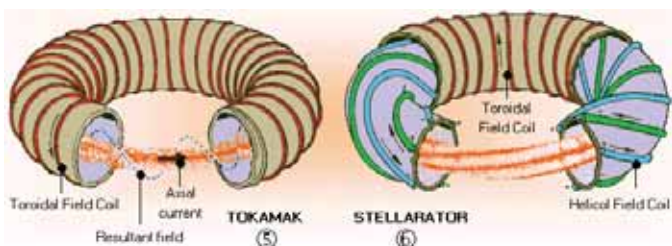
> Supercomputer: President George W. Bush signing the Cray X1 supercomputer installed in the Computational Sciences Building at Oak Ridge National Laboratory.

— Fusion Energy Sciences

— How We Serve the Public

Fusion is the power mechanism of the stars which occurs when smaller atoms like hydrogen combines to make larger atoms, like helium in a super-heated plasma. In our sun, this fusion of hydrogen into helium releases a large amount of energy. Harnessing the fusion process here on earth will provide a virtually never-ending, safe and environmentally friendly energy source available to the whole world. The challenge is to understand and capture this energy process for the benefit of all on Earth.

The Department's fusion energy sciences program supports advances in plasma science, fusion science, and fusion technology required for an attractive fusion energy source-economically and environmentally. The main scientific challenge in fusion sciences is to make fusion energy practical by addressing several questions:



> Magnetic Fusion: Magnetic fusion cannot happen without creating the magnetic forces that confine the charged particles of the high-density, high temperature plasma fuel for sustained fusion activity.

What is a tokamak?

A tokamak is a magnetic fusion device that shows great promise for a future "working" energy source. The word tokamak means "toroidal chamber" in Russian. This chamber is shaped into a ring, like a doughnut, called a torus. The tokamak has a strong toroidal magnetic field along the direction of the "doughnut" or torus.

A contrary magnetic field called a poloidal field in the direction of the doughnut's cross-section added to the toroidal field creates a resulting magnetic force traveling around the ring both ways at once. This combination of toroidal and poloidal magnetic fields creates a helical structure needed to keep the plasma stable.

What is a stellarator?

A stellarator also confines hot plasmas to produce fusion power, the central goal of magnetic confinement. Stellarators use 3-dimensional shaping to try and improve the plasmas confinement and stability properties. On the outer surface of the plasma, the high and low magnetic fields wrap around the plasma surface. In this confinement of the plasma, or rotational transform, the helicoidal fields on the surface contain the plasma and cause stability and eventual production of magnetic fusion energy. More recent designs, called hybrids, use a low level of plasma current flowing around the torus for rotational transform.

- Can a burning plasma that shares the characteristic intensity and power of the sun be successfully produced and sustained on Earth?
- To what extent can models be used to simulate and predict the behavior of the burning, self-sustained fusion fuel required for fusion applications?
- How can we develop new materials that will survive in the fusion environment that will be needed for commercial fusion power?

In addition to the significant funding in the U.S., more than \$1 billion in magnetic fusion research is being performed by other nations annually. This creates the opportunity for a joint scientific effort in which

experimental results are openly shared and that promotes international collaboration. In 2003, multilateral negotiations began to site, construct and operate an international facility called ITER. ITER will be the first fusion science facility capable of producing a sustained burning plasma, and is the next major step in demonstrating the scientific and technological feasibility of fusion energy.

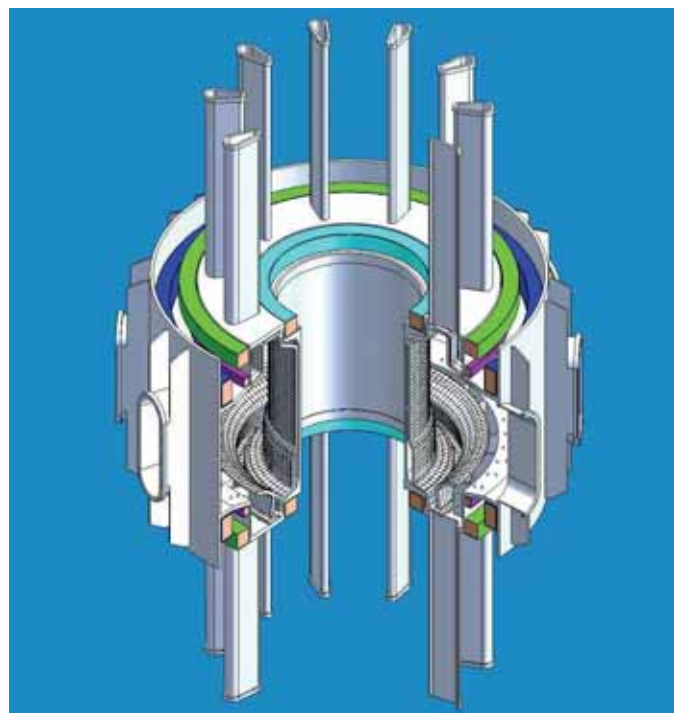
"Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world."
— Louis Pasteur

In FY 2005 and early FY 2006, international negotiations on ITER resulted in the host site selection of Cadarache, France, and India joining ITER as a full non-host party. In May 2006, the seven ITER parties initialed the ITER Agreement in Brussels, to signify that the text was final. The signing of the Agreement, tentatively scheduled for November 2006, will confirm the multilateral commitment for ITER and provide the legal framework for the construction, operation, deactivation, and decommissioning phases.

— Performance Against Key Targets

In FY 2006, the Department:

- Achieved an average operating time at the major national fusion facilities (DIII-D tokamak, the Alcator C-Mod, and the National Spherical

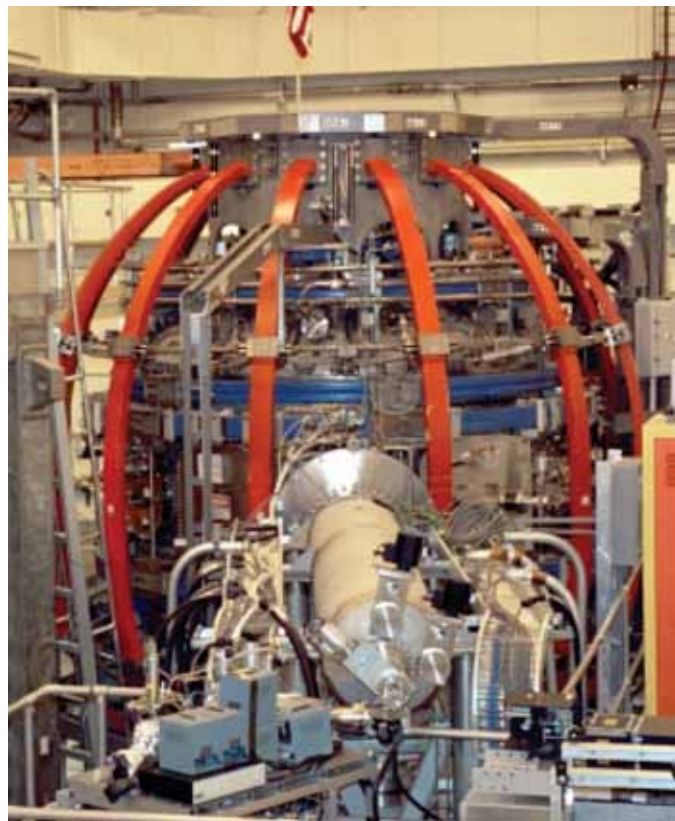


> C-Mod Vessel: Alcator-C-Mod, Massachusetts Institute of Technology, is a unique, compact-tokamak facility that uses intense magnetic fields to confine high-temperature, high-density plasmas in a small volume.

Torus Experiment) of greater than 90 percent of scheduled operating time for all of these facilities. These three facilities, the theory and enabling technology programs, and collaborations on international facilities provide the major share of U.S. contributions toward scientific and technological support for ITER. The U.S. Burning Plasma Organization established in May 2006, coordinates burning plasma research in the U.S. and made major progress by developing its structure, membership, and working on specific tasks for U.S. support for ITER physics and technology. Several joint experiments were conducted on U.S. and international tokamaks that investigated important ITER physics issues. In early FY 2006, the Department's fusion energy science program and the ASCR programs funded two fusion simulation prototype centers. The integrated simulation tools that these centers are producing are necessary for developing a predictive capability for burning plasmas and ITER.

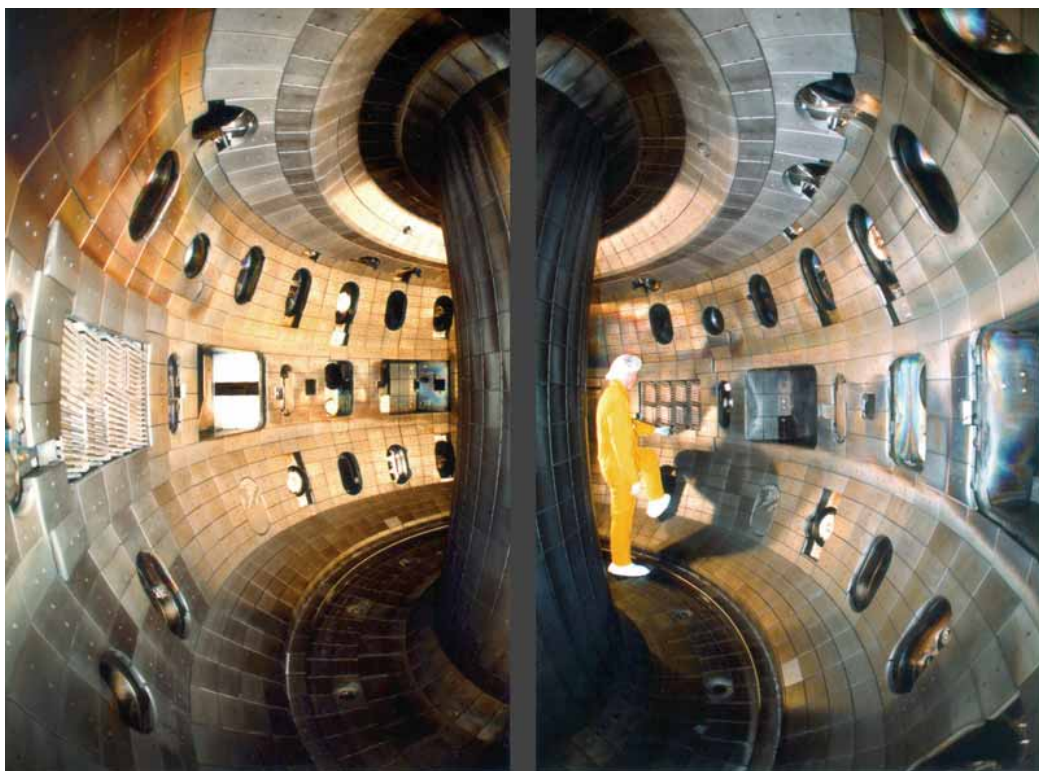
— External Factors Related to General Goal 5

The prospect of insufficient scientific and technical talent, now and in the foreseeable future, threatens our ability to maintain world-class scientific capacity.



> **National Spherical Torus Experiment:** NSTX, Princeton Plasma Physics Laboratory, is an innovative magnetic fusion device that was constructed by the Princeton Plasma Physics Laboratory in collaboration with the Oak Ridge National Laboratory, Columbia University, and the University of Washington.

> **Inside view of DIII-D Tokamak:** DIII-D, General Atomics, is the largest magnetic fusion research facility in the United States, with plasmas at close to fusion reactor temperatures.



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ENVIRONMENT

— ELIMINATING THE ENVIRONMENTAL LEGACY —

TO PROTECT THE ENVIRONMENT BY PROVIDING A RESPONSIBLE RESOLUTION TO THE ENVIRONMENTAL LEGACY OF THE COLD WAR AND BY PROVIDING FOR THE PERMANENT DISPOSAL OF THE NATION'S HIGH-LEVEL RADIOACTIVE WASTE.

The Department has had an environmental mission since its establishment in 1977. Following the end of the Cold War, this critical mission has been prioritized. Fifty years of nuclear defense work and energy research resulted in large volumes of solid and liquid radioactive waste along with significant areas of contaminated soil and water.

The mission of the Department's Environmental Management program is to safely clean up the contamination from these operations and dispose of the waste in a manner protective of the environment, the workers, and the public. Over the past several years, the program has delivered significant risk reduction and cleanup results while ensuring that the cleanup is safe for workers, protective of the environment and respectful to the taxpayer. These outcomes are providing important and valuable benefits for the generations to come. The Office of Environmental Management (EM) made significant advances in FY 2006 in accelerating and completing the packaging of plutonium and other high-risk nuclear materials for secure storage until disposition in a geologic repository.

Following site closure, the Office of Legacy Management (LM) takes control of the site and has the mission of protecting human health and the environment through effective long-term stewardship of land, structures, facilities, and records, as well as oversight of the Department's post-closure responsibilities for former contractor employees.

The Office of Civilian Radioactive Waste Management (RW) is responsible for managing and disposing of high-level radioactive waste and spent nuclear fuel in a manner that protects health, safety and the environment; enhances national and energy security; and merits public confidence.

> General Goal 6: Environmental Management

Accelerate cleanup of nuclear weapons manufacturing and testing sites, completing cleanup of 108 contaminated sites by 2025.

Safety is the Department's number one priority for all its missions, including Environmental Management. EM continues to maintain and demand the highest safety performance in all aspects of its work. The Department's cleanup program is focused on risk reduction, improved cleanup effectiveness and cost effectively, and working collaboratively with regulators and stakeholders in developing strategies for site closure.

While EM focuses on achieving site closure, LM focuses on post closure activities – long-term surveillance and maintenance, records, pension plans, and post-retirement benefits. This separation of mission objectives ensures that both offices are fully committed to their respective objectives, thus heightening the visibility and accountability to the affected communities.

— How We Serve The Public

The Department is facing the environmental legacy of more than 50 years of nuclear weapons production and nuclear power research and development. This mission requires the stabilization and disposition of large volumes of contaminated material and high-level radioactive waste. Once completed, the environmental risk will be effectively eliminated. This cleanup program is the largest effort in the world – encompassing over 2 million acres at 114 sites. As of September 2006, the Department has cleaned up and is monitoring 89 formerly contaminated geographical sites.

— ENVIRONMENT PERFORMANCE SCORECARD — (\$ in millions)

General Goal and Scores	Program Costs		Program Goals and Scores		FY 2006 Budgetary Expenditures Incurred *					Performance of Annual Targets		
	3Q 2006	FY 2005				Met (100%)	Not Met (> 80% but < 100%)	Not Met (< 80%)	Indetermined			
6. Environmental Management	\$4,367	\$6,719	Environmental Management	G	\$6,374	5	0	1	0			
			Legacy Management	G	\$49	2	0	0	0			
7. Nuclear Waste	\$346	\$521	Nuclear Waste Disposal	G	\$3	3	0	0	0			
Total Cost	\$4,713	\$7,240			\$6,426	10	0	1	0			

* Includes capital expenditures but excludes such items as depreciation, changes in unfunded liability estimates and certain other non-fund costs, and allocations of Departmental administration activities.



> Demolition: The demolition of the 334A Waste Acid Storage Building at the Hanford Reservation at Richland, Washington.

— Performance Against Key Targets

The Department set targets of cleaning up 89 and 100 geographic sites by the end of FY 2006 and FY 2012, respectively. To ensure the success of these future interim targets, EM maintains a set of corporate performance measures that enables the program to track the accomplishment of risk reducing actions at each of its sites. These corporate performance measures are quantitative and provide a comprehensive programmatic perspective to completing the EM mission. The performance measures, each of which has an established annual target, are tracked in the context of the total measure (life-cycle) necessary to complete each site as well as the EM program as a whole. The key performance measures below portray the broad scope of challenges the EM program faces in completing its cleanup mission.

During FY 2006, the Department:

Packaged for disposition a cumulative total of XXXX enriched uranium containers. This is an increase of XXXX containers over the cumulative total of XXXX enriched uranium containers packaged in FY 2005 and exceeds the cumulative goal of 5,877 for FY 2006 by XXXX containers. The accelerated schedules at the Savannah River Site were maintained throughout the year and resulted in this annual target being exceeded. This FY 2006 accomplishment will result in the Department meeting its goals for accelerated cleanup.

Packaged for disposition a cumulative total of XXXX containers of high level waste exceeding the cumulative FY 2006 goal of 2,477 by XXXX. This is an increase of XXX containers over the cumulative total of XXXX containers of high level waste packaged for disposition in FY 2005. This accomplishment will enable the Department to remain on schedule for its accelerated cleanup goal.

Completed the remediation work at a cumulative total of 357 nuclear and radioactive facilities, meeting its FY 2006 cumulative goal. This is

Chart 1 – TRU Waste Disposed at WIPP

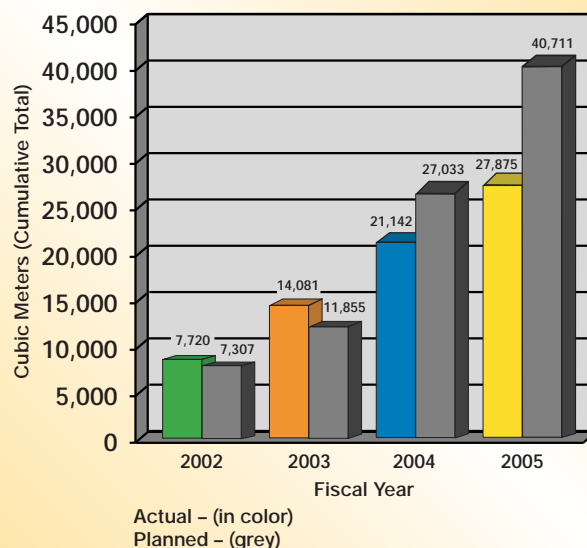


Chart 2 - Enriched Uranium Packaged for Disposition

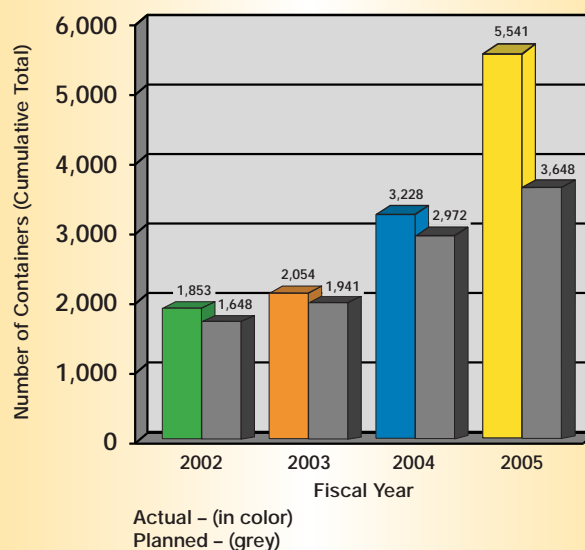
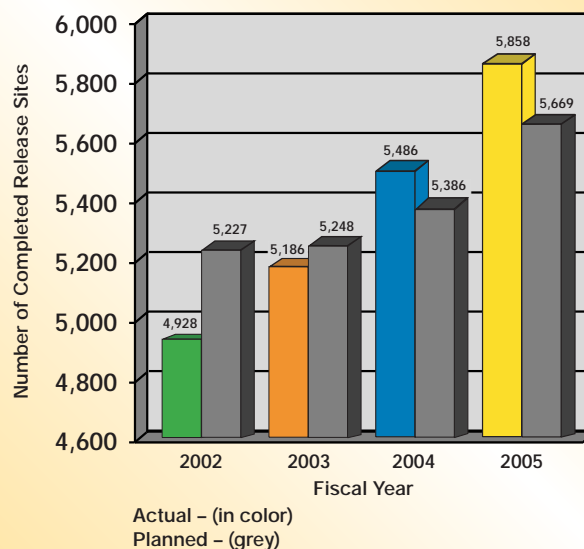


Chart 3 - Completed Release Sites



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an estimated increase of 58 facilities over the planned cumulative total of 299 nuclear and radioactive facility completions in FY 2005. Many sites, including facilities in Rocky Flats are physically completed and awaiting final regulatory approval. When the regulators approve the facility completion reports, the Department will take credit for those facilities. Achieving this annual performance target will enable the Department to maintain its accelerated cleanup schedule.

The Department failed to meet its target of disposal at the Waste Isolation Pilot Plant (WIPP) a cumulative total of 55,211 cubic meters of transuranic (TRU) waste. This was an estimated increase of 14,500 cubic meters over the planned cumulative total of 40,711 cubic meters of TRU waste to be disposed at WIPP in FY 2005. While the Department has not met its goal for FY 2006, the program is still on track to meeting its goals for accelerated cleanup. As Chart 1 indicates, EM was behind its life-cycle schedule for disposing of a cumulative total of 40,711 cubic meters of TRU waste at the end of FY 2005. EM has taken action to revise and improve procedures and implement corrective actions at Idaho National Laboratory (INL) and Los Alamos National Laboratory (LANL) in order to achieve sustained shipments. The Department is evaluating its schedule for shipments and will establish realistic targets for FY 2007. The negative variance results from delays throughout the complex including Idaho, Savannah River Site, Richland, and LANL. Idaho has met its goal of 6,000 cubic meters TRU waste disposed at WIPP required by the Settlement Agreement (known as the Batt Agreement). The Advanced Mixed Waste Treatment Facility continued to process waste at or near its design capacity.

LM supports the General Goal by ensuring that the Department's long-term agreements and legal commitments to environmental stewardship and to former contractor employees are satisfied. By managing the long-term surveillance and maintenance at closed sites, where remediation has been essentially completed, EM is allowed to concentrate its efforts on continuing to accelerate cleanup and site closure resulting in reduced risks to human health and the environment and reduced landlord costs.



> Uranium into Electricity: After weapons-grade uranium is down blended and packaged, the material is shipped to a nuclear fuel manufacturer in Erwin, TN, where it is converted into fresh reactor fuel for use in a TVA reactor to produce electricity. Shown is a shipment of low enriched uranium leaving the Savannah River Site for Erwin, TN.

The Department exceeded its goal of conducting surveillance and maintenance activities at 69 sites to ensure the effectiveness of cleanup remedies in accordance with legal agreements, or identify sites subject to additional remedial action in order to ensure effectiveness, by completing surveillance and maintenance activities at 77 sites, including Pinellas and Maxey Flats, in accordance with legal agreements. Exceeding this measure ensures continued effectiveness of cleanup remedies, and thereby protection of human health and the environment.

Met its goal for reducing the ratio of program direction expenditures to the total expenditures (excluding Congressionally Directed Activities) by 1 percent from the FY 2005 baseline. Program direction expenditures in FY 2006 were \$XXX million which is less than the 1 percent target amount of \$XXX million. Accomplishment of this measure ensures a lower cost of administering the program activities. This will result in a reduced ratio of program direction expenditures which will produce a lower administrative cost per program dollar.

Detailed performance information for the Environmental Management General Goal is available in the Performance Results section.

> External Factors Related to General Goal 6

The following external factors could affect our ability to achieve this goal:

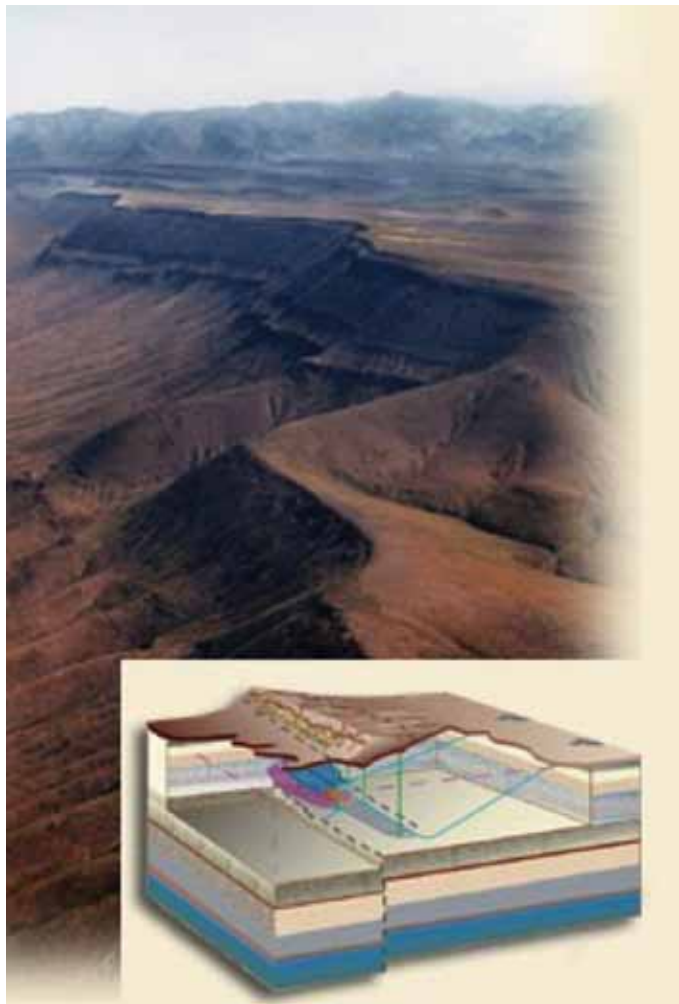
- **Regulatory Requirements:** The Department's approach to cleanup is influenced by various regulatory requirements, including compliance with environmental laws and regulations, agreements with state and federal regulators, and legal decisions. Laws and regulations are subject to change, agreements with states require renegotiation, and legal decisions can alter strategic frameworks.
- **Cleanup Standards:** The end state for cleanup at certain sites has not been fully determined. The extent of cleanup work scope greatly impacts cost and schedule.
- **Technology:** The development and deployment of innovative technologies could help reduce risk, lower cost, and accelerate the pace of cleanup. However, suitable cleanup technologies may not currently exist for all cleanup conditions.
- **Uncertain Work Scope:** Uncertainties are inherent in the environmental cleanup program due to the complexity and nature of the work. For example, there are uncertainties at some of the sites regarding the types of contaminants, their extent, and concentrations. As cleanup progresses, new discoveries of additional or more complex contamination is common.
- **Commercially Available Options for Waste Disposal:** The accomplishment of accelerated risk reduction and site closure is dependent upon the continued availability of commercial options for mixed low-level waste and low-level waste disposal.

- **Failure of Cleanup Remedy:** The failure of a cleanup remedy (technology, etc.) to perform as expected could result in a site being returned to EM for additional remediation.

> General Goal 7: Nuclear Waste

License and construct a permanent repository for nuclear waste at Yucca Mountain and begin acceptance of waste.

The disposal of spent nuclear fuel from the Nation's commercial nuclear reactors and the environmental cleanup and disposal of the Nation's high-level radioactive waste remaining from the Cold War is part of the Federal government's responsibilities. In July 2002, after more than two decades of scientific study, President Bush signed the joint Congressional Resolution designating Yucca Mountain as the site of the Nation's first geologic repository for high-level radioactive waste and spent nuclear fuel. The Department is responsible for licensing, building and operating the repository, which will ultimately be used to safely dispose of commercial waste and the Department's spent nuclear fuel, high-level radioactive waste and surplus fissile materials.



> **Yucca Mountain:** This artist's drawing shows what a repository might look like inside Yucca Mountain, if one were to be built there. Construction would take place through tunnels underground.

— How We Serve the Public

Commercial and defense spent nuclear fuel and other highly radioactive wastes are currently stored in temporary facilities at some 125 sites in 39 states (see map). More than 160 million Americans live within 75 miles of one or more of these sites. The ultimate consolidation and disposal of nuclear waste at Yucca Mountain will support national security and energy security, reducing the number of locations where nuclear materials are stored, and maintaining the viability of the Navy's nuclear powered fleet by providing a disposal path for the Navy's spent nuclear fuel. Nuclear waste disposal is also essential for maintaining the viability of the commercial nuclear power industry, which currently supplies more than 20 percent of the nation's electricity. Congress has indicated that continued support for nuclear power development is contingent upon successfully establishing the repository.

— Performance Against Key Targets

The Department's goal is to license and construct a permanent repository at Yucca Mountain. Accomplishing this goal requires:

- Obtaining a construction authorization from the Nuclear Regulatory Commission (NRC) and subsequently a license to operate the repository.
- Completing construction of the repository and infrastructure to support receipt and emplacement of spent nuclear fuel and high-level radioactive waste.
- Finishing the national and Nevada waste transportation systems in time to support repository operations. RW continues to establish the framework for initial waste receipt, as well as the infrastructure to support ongoing repository operations.

During FY 2006, the Department:

Submitted for Energy Systems Acquisition Advisory Board Secretariat (ESAAB) approval a modified critical decision-1 package that describes the design and operating plan for the repository, and provides a schedule for license application completion and docketing. The complete set of Critical Decision-1 (CD-1) products were completed and submitted to the ESAAB Secretariat, the Office of Engineering and Construction Management in April 2006. This included the design and operating plan for the repository, and also the Summary Analysis of Total Project Cost and Schedule impacts for CD-1. The CD-1 review is a critical decision point in the Yucca Mountain project. Completing this annual target ensures that the project remain on schedule to construct and operate the repository. The Department has established a schedule to submit a License Application to the NRC no later than June 30, 2008.

Published the draft rail alignment environmental impact statement (EIS) in the Federal Register. Comments on the EIS were received from

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all cooperating agencies and incorporated into the Draft Rail Alignment Environmental Impact Statement. This EIS is a critical step in building and licensing a transportation system capable of safely transporting spent nuclear fuel and other radiological waste to the Yucca Mountain repository.

> External Factors Related to General Goal 7

The opening date of the Yucca Mountain repository will also depend on resolution of a number of external factors, including:

- **Regulatory Requirements:** The NRC is responsible for reviewing DOE's license application for Yucca Mountain. The NRC requires that the Program certify it has submitted all documents relevant to the licensing process to the DOE Licensing Support Network (LSN) six months before the license application is submitted. In August 2004, the NRC issued its ruling striking the certification of the LSN document collection the Department submitted in June 2004. Another obstacle in the preparation and submittal of the license application was the July 2004 decision of the U.S. Court of Appeals to vacate the Environmental Protection Agency's 10,000 year radiation protection compliance timeframe for Yucca Mountain. Rulemaking proceedings by both agencies will be needed in order to establish new regulations consistent with that decision. The revised radiation protection

standard could require the reevaluation of some parts of the analysis in the license application.

- **Litigation:** It is likely that any NRC decision to issue a license to construct and operate a repository at Yucca Mountain will be challenged in the courts. These lawsuits, including ones filed by the State of Nevada, local jurisdictions, and others may pose schedule and financial risks to the Program. Another issue concerns ongoing lawsuits by the nuclear utilities. Although the courts have already established the Government's liability for damages stemming from delays in taking possession of commercial spent nuclear fuel in 1998, the amount of those damages is undetermined.
- **Congressional Funding:** Significant budget increases are required if the Program is to reach the goal of developing a geologic repository at Yucca Mountain. To ensure stable and sufficient funding for the design, construction, and operation of the repository, and for acquisition and development of the transportation infrastructure in the future, a restructuring of the Program's funding mechanisms is needed. The Department will continue to work with Congress to ensure that there is sufficient and stable funding available to meet the Program's requirements.



> Waste Locations: A national map of current waste locations.

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CORPORATE MANAGEMENT

— PRESIDENT'S MANAGEMENT AGENDA —

The President, in his 2001 President's Management Agenda (PMA), challenged the Federal Government to become more efficient, effective, results-oriented and accountable. Over the past four years, the PMA has become the primary framework by which the Department has implemented changes to support the President's management goals. The PMA reflects the President's on-going commitment to achieve immediate and measurable results that matter to the American people.



"What matters most is performance and results. In the long term, there are few items more urgent than ensuring that the Federal Government is well-run and results-oriented."

- President George W. Bush

Each agency is held accountable for its performance in carrying out the PMA through quarterly scorecards issued by OMB. Agencies are scored green, yellow or red on their status in achieving overall goals or long-term criteria, as well as their progress in implementing improvement plans.

The Department is scored against seven PMA initiatives: five government-wide areas and two agency-specific areas. Each year, the Department and OMB consider progress made over the previous year and create a plan for the upcoming year's PMA-related activities. The plan is used by the Department to guide further management reforms, and by OMB as the baseline for assessing the Department's quarterly performance. Further information on OMB's management of the PMA may be found at <http://www.results.gov>.

FY 2006 saw many significant accomplishments in each of the seven PMA areas. These are included in the report Fueling Progress for America: Results from Implementing the President's Management Agenda, issued by the Secretary of Energy in XX/XX/XX. The full report is available at <insert link here, report not posted yet>. Key achievements in each of the seven PMA areas are discussed below.

Initiative	As of September 30, 2006	
	Status	Progress
Human Capital	Green	Green
Competitive Sourcing	Yellow	Green
Financial Performance	Green	Green
E-Government	Yellow	Green
Budget & Performance Integration	Green	Yellow
Federal Real Property Asset Mgt.	Yellow	Green
R&D Investment Criteria*	TBD	TBD

* A common R&D Investment Criteria score is determined for the entire government.

Green: Implementation is proceeding according to plan.
 Yellow: Some slippage or other issue(s) requiring adjustment.
 Red: Initiative in serious jeopardy absent significant management intervention.

Strategic Management of Human Capital – The Department continues to make significant progress in its management of human capital. Specifically, the Department reduced the under-representation of minorities in its workforce, especially in the area of Hispanic employment. Additionally, DOE took additional steps to reduce or eliminate skills gaps in critical mission occupations. For example, as of May 2006, all major DOE projects are now being managed by certified project managers. In addition, the Department has developed a revised Human Capital Management Strategic Plan.

Competitive Sourcing – The Department has studied 1,228 Federal and over 1,022 contractor positions since FY 2002 as part of eight competitive sourcing studies. As a result of the competitions completed to date, DOE expects to save taxpayers over \$538 million.

Improved Financial Performance – The Department implemented an aggressive plan to mitigate and remediate the financial management challenges that were identified since receiving a disclaimer of opinion on its FY 2005 financial statements. On the heels of converting to a new Standard General Ledger compliant financial accounting system during FY 2005, the remediation effort has already resulted in significant improvements in the underlying business practices used complex-wide. In January 2006, a new cost accrual methodology was put into place which automatically accrues cost on the thousands of outstanding obligations each month. Project management at the Department was enhanced using Earned Value Management system certifications and techniques

that objectively track physical accomplishment of work and provide early warning of performance problems, increasing the likelihood that projects will stay within planned cost and schedule. Real property management was improved by establishing a departmental framework of internal controls, including a standard validation process and formal classes to teach the process. The Department continues its aggressive effort to build and improve its integrated business management system, I-MANAGE, and the associated I-MANAGE Data Warehouse. Together, these systems enhance decision-making with increased availability and reliability of financial and other business data, and by providing these just-in-time data at their desktops. Future modules of the I-MANAGE suite under development include a budget formulation system and a standard procurement capability.

Expanded Electronic Government – The Department has made considerable progress in achieving PMA objectives for Expanded Electronic Government in FY 2006. Key accomplishments include a renewed emphasis and focus on cyber security as demonstrated by completion of a Cyber Security Revitalization Plan in March 2006, and the subsequent issuance of over twelve new cyber security guidance documents; enhanced and better integrated information technology (IT) management processes to ensure that IT fully aligns with and supports Departmental missions; and the establishment and use of the DOE Enterprise Architecture as a strategic driver for future IT management. These accomplishments are validated by Office of Management and Budget approval of the over \$2 billion in the budget year 2007 IT portfolio.

Budget and Performance Integration – The Department continues to improve and expand the integration between budget and performance information. This past year, senior leadership formulated a new Department-wide Strategic Plan that will be the foundation of future

budgets and the lens through which the performance of the Department is evaluated. Working with the Office of Management and Budget, the Department completed a five year project to assess all programs using the Program Assessment Rating Tool (PART); the Department's average score on PART is moderately effective. Finally, the Department issued its first ever agency-wide multi-year budget plans to Congress in March 2006, which serve as the five year planning window that bridges the high-level goals of the Strategic Plan and the key funding objectives of the annual budget request to Congress.

Federal Real Property Asset Management (Agency-Specific) – Last year, the Department issued its Asset Management Plan (AMP) providing the guidelines and principles for managing the real property portfolio. This year, the Department prepared an implementation document (the “Three Year Rolling Timeline”) outlining specific activities meant to meet the goals of the plan. The Department continued to improve its Facility Information Management System and satisfied the Federal Real Property Council’s goal of 100 percent reporting of all data elements. Further, to enhance the integrity and reliability of the Department’s real property data, a statistical validation program was established to monitor data accuracy and correct deficiencies.

Research and Development Investment Criteria (Agency-Specific) – TBD

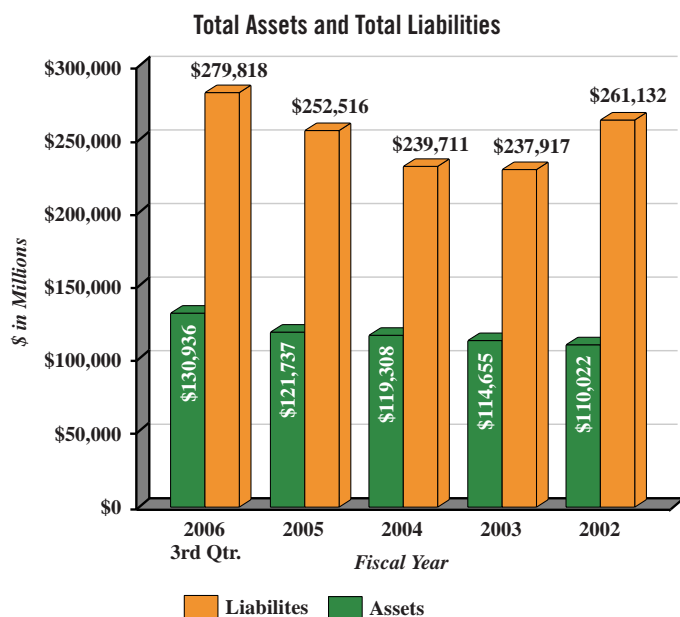
“Working together, we will achieve our goal of steadily improving every Department of Energy program and continue to transform the Department into an organization that makes good on its promises and delivers results for the Nation.”

– Energy Secretary Samuel W. Bodman

— ANALYSIS OF FINANCIAL STATEMENTS —

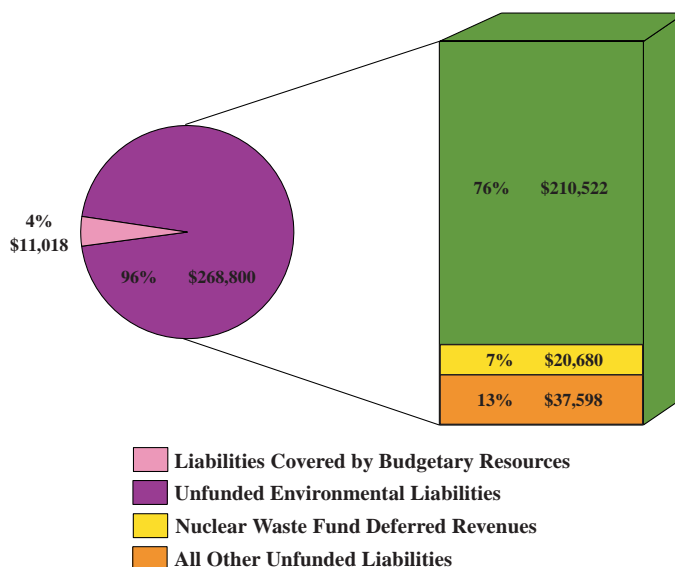
The Department's financial statements, which are included in the Financial Results section of this report, received an [] opinion from KPMG LLP. Preparing these statements is part of the Department's goal to improve financial management and provide accurate and reliable information that is useful for assessing performance and allocating resources. The Department's management is responsible for the integrity and objectivity of the financial information presented in these financial statements.

The financial statements have been prepared to report the financial position and results of operations of the entity, pursuant to the requirements of 31 U.S.C. 3515(b). The statements have been prepared from the Department's books and records in accordance with generally accepted accounting principles (GAAP) prescribed by the Federal Accounting Standards Advisory Board and the formats prescribed by the Office of Management and Budget. The financial statements are prepared in addition to the financial reports used to monitor and control budgetary resources which are prepared from the same books and records. The statements should be read with the realization that they are for a component of the U.S. Government, a sovereign entity.



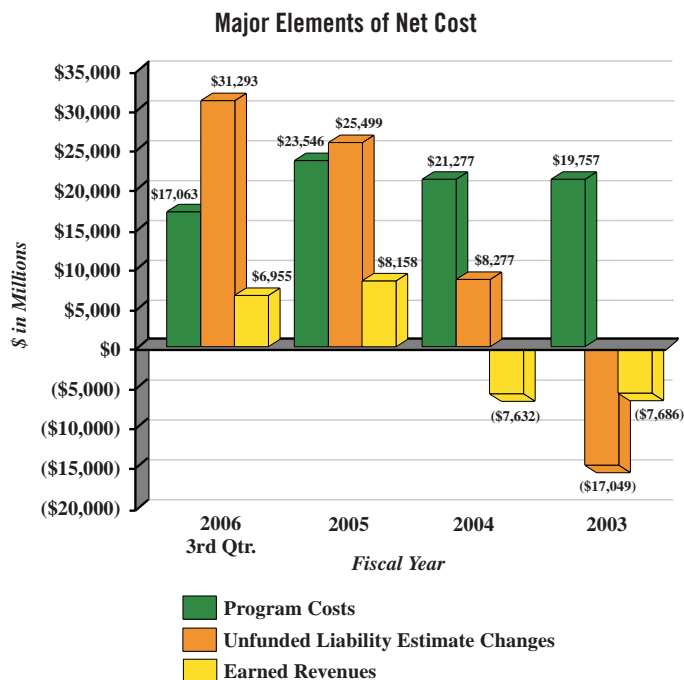
Balance Sheet. The Department has significant unfunded liabilities that will require future appropriations to fund. The most significant of these represent ongoing efforts to cleanup environmental contamination resulting from past operations of the nuclear weapons complex. The FY 2006 (3rd Quarter) environmental liability estimate totaled \$214 billion and represents one of the most technically challenging and complex cleanup efforts in the world. Estimating this liability requires making assumptions about future activities and is inherently uncertain. The future course of the Department's environmental management program will depend on a number of fundamental technical and policy choices, many of which have not been made. The cost and environmental implications of alternative choices can be profound.

FY 2006 Liabilities (\$in Millions)



Changes to the environmental baseline estimates during FY 2006 and FY 2005 (unaudited) resulted from inflation adjustments to reflect constant dollars for the current year; improved and updated estimates for the same scope of work; revisions in acquisition strategies, technical approach or scope; regulatory changes; cleanup activities performed; additional scope and transfers out of the environmental baseline estimates; and additions for facilities transferred from the active and surplus category.

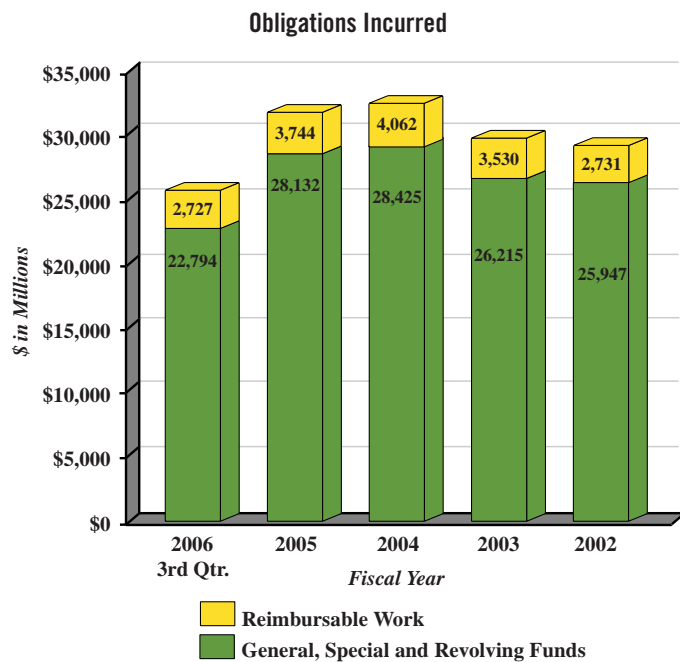
Net Cost of Operations. The major elements of net cost include program costs, unfunded liability estimate changes, and earned revenues. Unfunded liability estimate changes result from inflation adjustments;



improved and updated estimates; revisions in acquisition strategies, technical approach, or scope; and regulatory changes. The Department's overall net costs are dramatically impacted by these changes in environmental and other unfunded liability estimates. Since these estimates primarily relate to the cost of prior years operations, they are not included as current year program costs, but rather reported as "Costs Not Assigned" on the Consolidated Statements of Net Cost. Program costs also exclude current-year expenditures for environmental cleanup work as those costs were accrued in prior years.

Budgetary Resources. The Combined Statements of Budgetary Resources provide information on the budgetary resources that were made available to the Department for the year and the status of those resources at the end of the fiscal year. The Department receives most of its funding from general government funds administered by the Department of the Treasury and appropriated for Energy's use by Congress. Since budgetary accounting rules and financial accounting rules may recognize certain transactions at different points in time, Appropriations Used on the Consolidated Statements of Changes in Net Position will not match costs for that period. The primary difference results from recognition of costs related to changes in unfunded liability estimates. The Consolidated Statements of Financing reconcile the accrual-based and budgetary-based information.

Pension/Post Retirement Benefits Liabilities Trend Analysis. TBD.



Management Assurances

The Department's management is responsible for establishing and maintaining an effective system of internal controls to meet the objectives of the Financial Managers' Financial Integrity Act. To support management's responsibilities, the Department is required to perform an evaluation of management and financial system internal controls as required by Sections II and IV respectively of OMB Circular A-123, Management's Responsibility for Internal Control, and internal controls over financial reporting as required by Appendix A of the Circular.

The Department has completed its evaluation of management and system controls and, based on that evaluation, can provide reasonable assurance that internal control over the effectiveness and efficiency of operations and compliance with applicable laws and regulation as of September 30, 2006 was operating effectively except for [] material weaknesses found in the design or operation of the internal controls. Evaluation results also indicated that the Department's financial management systems generally [conform/non-conforms] to governmental financial system requirements and are in [compliance/non-compliance] with the Federal Financial Management Improvement Act.

In addition, the Department has completed its FY 2006 evaluation of internal control over financial reporting, which includes safeguarding of assets and compliance with applicable laws and regulations, as required by Appendix A of OMB Circular A-123 and Departmental requirements. The evaluation included an assessment of both entity and process controls, as required. Based on the results of the evaluation, the Department is providing reasonable assurance that, except for the material weaknesses noted, internal controls over financial reporting as of June 30, 2006, were working effectively and no other material weaknesses were identified in the design or operation of the specific controls over financial reporting evaluated. However, the Department cannot provide complete assurance due to the Department's approved scope limitation. A complete assurance (qualified or unqualified) can only be provided upon completing a full scope assessment of all high, medium and low risk activities.

Samuel W. Bodman
November 15, 2006



Federal Managers' Financial Integrity Act

The Federal Managers' Financial Integrity Act (FMFIA) of 1982 requires that agencies establish internal control and financial systems to provide reasonable assurance that the integrity of Federal programs and operations is protected. Furthermore, it requires that the head of the agency provide an annual assurance statement on whether the agency has met this requirement and whether any material weaknesses exist. The Secretary's FY 2006 annual assurance statement is included in his message at the beginning of this report.

In response to the FMFIA, the Department developed an internal control program which holds managers accountable for the performance, productivity, operations and integrity of their programs through the use of management controls. Annually, senior managers at the Department are responsible for evaluating the adequacy of the internal controls surrounding their activities and determining whether they conform to the principles and standards established by the OMB and the GAO. The results of these evaluations and other senior management information are used to determine whether there are any internal control problems to be reported as material weaknesses. The Departmental Internal Control and Audit Review Council, the organization responsible for oversight of the Management Control Program, makes the final assessment and decision for the Department.

Appendix A of OMB Circular A-123

New internal control requirements for publicly-traded companies contained in the Sarbanes-Oxley Act of 2002 paved the way for the Federal government to also strengthen its internal control requirements. The issuance of Appendix A of OMB Circular A-123 provides new specific requirements to agencies for conducting management's assessment of internal control over financial reporting. The Department has adopted a three year, phased approach for implementing the new requirements in Appendix A of OMB Circular A-123. For 2006, the scope for Federal sites was limited to the high-risk activities that are most critical to supporting our financial statement audit goals. For contractor sites, the scope included all high-risk activities. All activities, including medium and low risk, are expected to be completed by the end of FY 2008. Material weaknesses identified as of June 30, 2006:

- Controls over entries to record reductions to environmental liabilities and Construction Work in Progress related to legacy waste expenditures were not working effectively. Controls failed to prevent or detect, in a timely manner, material differences between reductions to legacy waste facilities and environmental liabilities for current year legacy waste capital expenditures.
- Controls over reconciliation and confirmation of interoffice accounts receivable and accounts payable were not working effectively. Standard

Accounting and Reporting System (STARS) reports necessary to facilitate interoffice reconciliations were not available in time for field offices to confirm interoffice receivables and payables prior to the preparation of the Department's third quarter financial statements.

- Controls to ensure integrated contractors properly recorded current year changes to pension and post retirement benefits other than pensions (PRB) unfunded liabilities were insufficient to identify the use of the incorrect Standard General Ledger accounts and program values. STARS edits and/or Headquarters reconciliation procedures failed to identify entries made by integrated contractors that did not comply with the Department's guidance for unfunded pension and PRB liabilities.

Although the material weaknesses described above were identified as of June 30, 2006, appropriate corrective actions have been taken. Therefore, these issues are not considered material for the year-end financial statements presented in this report.

Federal Financial Management Improvement Act

The Federal Financial Management Improvement Act (FFMIA) of 1996 was designed to improve Federal financial management and reporting by

requiring that financial management systems comply substantially with three requirements: (1) Federal financial management system requirements; (2) applicable Federal accounting standards; and (3) the United States Government Standard General Ledger at the transaction level. Furthermore, the Act requires independent auditors to report on agency compliance with the three stated requirements as part of financial statement audit reports.

Federal Information Security Management Act

The Federal Information Security Management Act (FISMA) of 2002 directs Federal agencies to conduct annual evaluations of information security programs and practices. It provides a comprehensive framework for establishing and ensuring the effectiveness of security controls for information and information systems that support Federal assets and operations. In accordance with FISMA, the CIO is responsible for developing, maintaining, ensuring compliance with and reporting annually on the agency's cyber security program. The IG is charged with conducting an annual, independent review of the agency's cyber security program, and reporting its findings to Congress and the Executive Office of the President.

— MANAGEMENT CHALLENGES AND SIGNIFICANT ISSUES —

The Department carries out multiple, complex and highly diverse missions. Although the Department is continually striving to improve the efficiency and effectiveness of its programs and operations, there are some specific areas within our operations that merit a higher level of focus and attention. These areas represent the most daunting management challenges and significant issues we have in accomplishing our mission. The Reports Consolidation Act of 2000 requires that, annually, the Inspector General (IG) prepare a statement summarizing what he considers to be the most serious management and performance challenges facing the Department to be included in the Performance and Accountability Report. The IG's statement included in the Financial Results section of this report identifies challenges for the Department. Similarly, in FY 2003, the Government Accountability Office (GAO) identified six major management challenges and program risks to be addressed.

After considering the areas identified by the IG and GAO, as well as all other critical activities within the agency, the Department identified 11 "Significant Issues" that we believe represent the most important

matters facing the Department now and in the coming years. It is our goal that resolution of our Significant Issues will help mitigate the IG and GAO management challenges as well as internally identified issues.

The GAO identified two areas not included by the IG or the Department. The challenges are related to revitalizing the Department's infrastructure and meeting the Nation's energy needs. While the Department recognizes the importance of both of these areas and has included these as issues in the past, based on our progress in reducing these vulnerabilities, we no longer consider these areas to be significant management problems.

The Department aggressively pursues corrective action for all challenges, whether externally identified by the IG or GAO or internally identified by the Department. To further highlight the Department's strategy for mitigating the previously mentioned significant management issues, the following table identifies the Department's Significant Issues for FY 2006 and demonstrates their relationship with the IG and GAO challenges.

— FY 2006 MANAGEMENT CHALLENGES AND SIGNIFICANT ISSUES —

IG Challenge Area	GAO Challenge Area by Department	Significant Issue Identified
	Resolve problems in contract management that place agency at high risk for fraud, waste and abuse (S)	Oversight of Contractors (S)
	Address security threats and problems (D)	Security (D)
	Improve management for cleanup of radioactive and hazardous wastes (D)	Environmental Cleanup (D)
	Improve management of the Nation's nuclear weapons stockpile (D)	Stockpile Stewardship (D)
	Management (S)	Information Technology (S)
		Project Management (D)
		Financial Control and Reporting (S)
(D) Mission Direct (S) Mission Support	Enhance leadership in meeting the Nation's energy needs (D)	
	Revitalize infrastructure (S)	
		Human Capital Management (S)
		Safety & Health (S)
		Nuclear Waste Disposal (D)
		Unclassified Cyber Security (S)

Oversight of Contractors

Description of Issue

Improvements are needed in the oversight of contractors managing and operating the Department's facilities. Specific oversight problems have been identified at environmental cleanup sites, Yucca Mountain and laboratories conducting national security and scientific activities.

Adequate oversight is needed to assure that contractor operations are effective and efficient.

Actions Taken & Remaining

In FY 2006, the Department's Office of Science (SC) continued implementation of its new restructured organization that places clear line management accountability for the laboratory contracts at the Site Office. This sharpened focus within SC for ensuring efficient and effective SC laboratory mission and operational performance. SC also utilized its new contract approach to compete the Thomas Jefferson National Accelerator Facility contract. Over the next twenty-four months this new approach will be utilized to compete the contracts at the Argonne, Ames, Fermi and Princeton laboratories. In addition, SC has completed its revision of new performance measures and been conducting both technical and business reviews with each of their laboratory contractors.

Recognizing the need for increased focus on planning and management of contracts and the competitive procurement process, the Department has restructured its Office of Environmental Management (EM) to include a Deputy Assistant Secretary for Acquisition and Project Management. This re-organization will establish more systematic ways to identify lessons learned from past contract awards; emphasize training for its contracting staff; streamline acquisition activities; develop consistent contracting strategies that are expected to lead to shorter procurement lead-times; and institute more timely resolution of contracting issues leading to contract modifications.

Additionally, NNSA Site Manager reporting has been realigned to the Deputy Administrator for Defense Programs to enhance management accountability and provide consistent programmatic, management and administrative guidance to all areas, including Contract Administration.

Expected Completion

To be reevaluated in FY 2007.

Security

Description of Issue

Unprecedented security challenges have evolved since the events of September 11, 2001. The need for improved homeland defense, highlighted by the threats of terrorism and weapons of mass destruction, created new and complex security issues that must be surmounted to ensure the protection of our critical energy resources and infrastructure. These have made it necessary for the Department to reassess and strengthen its security postures.

Actions Taken & Remaining

In May 2004, the former Secretary of Energy announced a set of sweeping new initiatives to improve security across the Department's nationwide network of laboratories and defense facilities, particularly those housing weapons-grade nuclear material. The Department's continued completion of these initiatives will ensure the Department has a clear strategic security plan outlining the Department's future security course, conducts ongoing threat analyses to establish the framework for continually improving security protective measures and enhances the physical security of our facilities. In FY 2006, a number of actions were taken to improve security across the Department. These actions focused on implementing the necessary improvements to meet the current Design Basis Threat Policy to include revising vulnerability assessments; evaluating, testing and deploying security technologies; and developing the elite protective force model. Through an integrated approach, the Department is working to coordinate site mission, operations, security technologies and the elite protective force to provide more robust security protection measures at a lower overall cost. The Security Technologies Demonstration at the Idaho National Laboratory included this approach and the results of this demonstration will be combined with a review of security protection measures. This approach will be initiated throughout the Department to build an efficient security program that is also flexible to meet both today's threat and tomorrow's challenges.

NNSA continued the implementation of processes, procedures and technologies to fully implement the Enhanced Design Basis Threat. Resource and planning documents were developed for the Diskless Workstation Conversion Secretarial initiative. During FY 2006, NNSA also continued work with various programmatic and administrative elements to meet portions of Homeland Security Presidential Directive-12 access controls requirements. NNSA also continued to address specific security operations and personnel issues identified by the IG and GAO.

Expected Completion

Long-term correction is expected due to the continuing nature of security threats.

Environmental Cleanup

Description of Issue

There are significant long-term compliance and waste management problems at the Department's facilities due to past operations that left risks to the environment. Even though these issues resulted from earlier activities conducted in a different atmosphere and under less stringent standards than today, the Department is committed to maintaining compliance with current environmental laws and agreements.

Actions Taken & Remaining

The Department continues to make progress in cleaning up contaminated sites. In FY 2006 six sites achieved cleanup completion - the Rocky Flats Site in Colorado, Ashtabula and Columbus Sites in Ohio, Lawrence Livermore National Laboratory – Main Site, and Sandia National Laboratory in California, and the Kansas City Plant in Missouri. In addition, the Fernald Site in Ohio is expected to be completed by the end of the calendar year. Also, the Lawrence Berkeley National Laboratory in California and Miamisburg Site in Ohio are expected to complete cleanup activities in FY 2007. Longer term activities within the EM program include treating radioactive liquid waste into a stable form; safely storing nuclear materials; disposing transuranic and low-level waste; and decontaminating and decommissioning excess facilities and remediating the surrounding environment.

While cleanup progress continues to be made, there have been some setbacks. Several assumptions made as part of the Accelerated Cleanup initiative have not materialized; new work scope from emerging cleanup requirements has now been identified; and execution of some key projects has not been adequate. In addition, at EM target funding levels, the Department believes that there are major uncertainties regarding its ability to comply with current requirements in its environmental cleanup agreements and with other requirements. These target levels were developed based on the now outdated accelerated site closure strategy and assumptions. The Department is currently updating these assumptions to reflect known changes in the regulatory and statutory requirements, incorporate changes based on actual program performance, and to incorporate technological and acquisition strategies to meet the Department's long-term environmental commitments. In addition, EM continues to implement robust project management principles including the refinement and validation of resource-loaded project baselines and senior leadership monitoring of cost and schedule performance.

Expected Completion

Correction is expected to extend to the out-years with the completion date to be reassessed in FY 2008.

Stockpile Stewardship

Description of Issue

Stewardship of the Nation's nuclear weapons stockpile is one of the most complex, scientifically technical programs undertaken and the Department needs to ensure that all aspects of this mission-critical responsibility are fulfilled. Based on stockpile stewardship activities, the Secretary, jointly with the Secretary of Defense, annually certifies to the President that the nuclear weapons stockpile is safe and reliable and that underground nuclear testing does not need to resume. Success is dependent upon unprecedented scientific tools to better understand the changes that occur as nuclear weapons age, enhance the surveillance capabilities for determining weapon reliability, and extend weapon lives. The Department must ensure that problems in these areas are aggressively addressed.

Actions Taken & Remaining

Processes have been put in place to eliminate a backlog of surveillance tests and resolve deficiencies in the investigations conducted when weapons problems are identified. Plans and financial controls over weapons refurbishment have been strengthened. Self-assessments of project management processes of the Enhanced Surveillance Campaign have been completed and all sites have developed an Enhanced Surveillance Campaign Project Management Improvement Plan. During FY 2005, the Enhanced Surveillance Campaign Risk Management Plan was issued. The Life Extension Program and sub-elements are now subject to the NNSA's Planning, Programming, Budgeting and Evaluation processes and the Department's project management processes. Resource loaded plans that contain cost, scope and milestones were implemented for the Enhanced Test Readiness Program during FY 2005.

In FY 2006, NNSA announced the details of the Nuclear Weapons Complex 2030, a comprehensive plan to enhance the Department's capability to respond to national and global security challenges while facilitating the President's vision of a smaller stockpile consistent with our national security needs. To guide and oversee Complex 2030, NNSA established the Office of Transformation under its Deputy Administrator for Defense Programs. Other major activities initiated to implement Complex 2030 include a Reliable Replacement Warhead, the acceleration of warhead dismantlement to enhance test readiness and the move toward consolidating special nuclear material to fewer sites.

Expected Completion

Long-term correction is expected.

Information Technology Management

Description of Issue

The Department has experienced problems in fully implementing the Clinger-Cohen Act of 1996 and in meeting the requirements of OMB Circular A-130. In summary, these requirements establish Federal agency Chief Information Officers (CIOs) with a broad set of responsibilities for maximizing mission accomplishment through improved and more cost-effective use of information technology. Significant barriers to implementing these responsibilities included a decentralized approach to information technology management, the limited control and influence by the CIO in the program budgeting process and the lack of an information technology baseline. Audit reports indicated that the Department did not yet have an effective investment strategy and management tools for corporate information technology activities.

Actions Taken & Remaining

The Department has made significant progress during this past year to strengthen management of information technology resources. The E-Government strategic plan, the Information Resource Management Strategic Plan, and the Enterprise Architecture Modernization Blueprint provided guidance to all organizations on Information Technology (IT) investments and the requirement to develop plans to transition to the Target Architecture. Draft DOE Order 413 will establish requirements for information technology project management throughout the Department and will codify CIO authorities and roles/responsibilities. The implementation of Electronic Capital Planning and Investment Control (eCPIC) and the establishment of the DOE Modernization Blueprint define the IT baseline and inventory of systems. The systems, projects, and initiatives identified in eCPIC combined with the DOE Enterprise Architecture document the DOE IT inventory.

The Department has established an Enterprise Licensing Agreement program to consolidate vendor licensing agreements and leverage proactive support strategies across the DOE enterprise. The program will standardize and reduce IT software costs, enhance security and improve procurement process efficiency.

Expected Completion

FY 2006

Project Management

Description of Issue

The Department needs to improve the discipline and structure for monitoring project performance and controlling program and baseline changes to projects as well as the Department-wide approach for certifying Federal Project Directors at predetermined skill levels to ensure competent management oversight of resources. In addition, it was determined that the Department needs stronger policies and controls to ensure that ongoing projects are reevaluated frequently in light of changing missions.

Actions Taken & Remaining

EM has applied project management principles to all cleanup projects having a total estimated cost greater than \$20 million and is continuing its review of resource-loaded cost and schedule baselines for 88 projects. The baselines describe in detail the activities, schedule and resources required to complete the EM cleanup mission at each site or to construct a major facility at a site. Of the 88 projects, 67 are considered active and external independent reviews have been completed for 47 active projects. External Independent Reviews for the balance of the active projects (20 projects) are being scheduled and conducted as expeditiously as possible.

SC has an established process, recognized as effective by the National Research Council. Results, as measured by the Department's Project Assessment and Reporting System, have demonstrated success.

During FY 2006, NNSA continued their efforts in strengthening and expanding project management capabilities through the certification process of its construction Project Managers.

Expected Completion

FY 2007

Financial Control and Reporting

Description of Issue

The overlapping implementations of the financial services Most Efficient Organization (MEO), the Integrated Management Navigation System (I-Manage) Standard Accounting and Reporting System (STARS) and Data Warehouse (IDW) have resulted in a new organizational structure for performing financial services and accounting operations, a new financial management system, numerous business process changes, centralization of accounting functions, a new chart of accounts (standard general ledger) and new accounting codes. As a result, the Department is now faced with many challenges related to data conversion, data/system reconciliation and start-up operations. In addition, the Department missed critical milestones in preparing its FY 2005 consolidated financial statements for audit.

Actions Taken & Remaining

A large number of the initial challenges associated with standing up the new financial services organization and conversion to the new financial management system in FY 2005 have been overcome. Many of the transaction processing backlogs experienced in the initial start-up have been brought under control as the staff gained operational experience. Also, to ensure system data integrity, key reconciliations are being performed and corrective actions are underway to resolve data conversion issues from the Department's legacy accounting systems to STARS. These reconciliations, once completed, should provide reasonable assurance that the Department's accounting data used for funds control and financial reporting are accurate.

During FY 2006, resources were allocated to the STARS and IDW Project Teams and to the Office of Financial Management to expedite the corrective actions related to data conversion, data/system reconciliation, and start-up operations. To supplement Federal staffing in these areas, contractual support was added, where needed, in FY 2006. Issues and corresponding corrective actions have been well documented and progress made is formally reported to senior management on a weekly basis. Responsible senior managers are fully engaged in the day-to-day management of the corrective actions.

Expected Completion

FY 2006

Human Capital Management

Description of Issue

Since 1995, the Department has experienced a 25 percent reduction in the workforce. In FY 2006, up to 40 percent of the Department's critical workforce is eligible for retirement within the next 5 years. Combined with other factors such as lengthy moratoria on hiring, the relative age of the workforce, and a variety of incentives to leave Federal service, the decline in staffing has left the Department with a significant challenge: reinvesting in its human capital to ensure that the right skills, necessary to successfully meet its missions, are available.

Actions Taken & Remaining

A Departmental framework for addressing this issue was put in place with the implementation of a comprehensive human capital management strategy; an improved senior executive performance management system; a guide on developing and retaining a highly-skilled workforce; and business visions and workforce plans for all major offices.

During FY 2006, efforts continued to re-shape the Department's work force through increased emphasis on performance and accountability. EM issued its comprehensive Human Capital Management Plan to address issues of performance excellence, leadership continuity and knowledge management. EM also has plans to establish an EM Intern Program to recruit and develop employees for future critical skills areas such as engineering, sciences, acquisition and contract management and safety while pressing to fill the skill gaps in technical capabilities in the present workforce. The Office of Personnel Management has granted approval to NNSA to conduct a Pay Binding/Pay for Performance Demonstration Pilot Project (one of two in the Federal Government). This pilot should rejuvenate the Federal workforce over the next 5 years and beyond.

Projects and programs such as these will assist the Department in making strides in closing skill gaps in its critical occupational areas.

Expected Completion

Ongoing

Safety & Health

Description of Issue

Ensuring the safety and health of the public and the Department's workers is one of the top priorities in accomplishing our challenging scientific and national security missions. Due to the inherently critical nature of these issues, there is the need for continuous vigilance and improvement. Currently, the Department continues to address emerging safety issues identified within the past year.

Actions Taken & Remaining

Significant actions have been taken to mitigate Safety and Health concerns. SC continued efforts to identify benchmarks for safety performance and establish a best-in-class performance measure based on performance by the top 10 percent of similar research and development industries. These goals are institutionalized and are being incorporated into the lab appraisal plans. SC's plan is to have all labs performing in the top 10 percent of R&D industries by the end of FY 2007.

NE completed planned reviews of Advanced Test Reactor (ATR) safety bases documentation in FY 2006 and will continue these reviews as part of the ATR Documented Safety Analysis reconstitution project, in support of the ATR Life Extension Program. By the end of FY 2006, Idaho National Laboratory will completely develop and implement an Integrated Safety Management System description and undergo a Phase I Verification assessment of the program. Additionally, NE will complete its implementation of DOE Order 226.1, Oversight Policy Implementation. This effort will incorporate: a new NE-HQ ISMS system description; an Oversight Proficiency Assurance Program to assure the proper competencies for safety oversight and delegation of safety authorities; and an Oversight Standard Operating Procedure that will require a fully integrated, risk-based oversight schedule starting in FY 2007.

In FY 2006 the Department's Office of Independent Oversight continued its mission to evaluate the effectiveness and institutional safety and health processes and the implementation of the core functions of Integrated Safety Management. Safety performance evaluations were conducted at the Savannah River Site, Kansas City Plant and Los Alamos National Laboratory, and were initiated for Hanford and the Stanford Linear Accelerator Center. This office also conducted an inspection of the EM Program at the Oak Ridge National Laboratory and issued five reports, one on essential safety systems for nuclear operations and four from the cross-cutting reviews conducted during FY 2005.

In addition to the basic statistical methodology to monitor safety performance, EM adopted a project based approach in FY 2006. By using the EM Earned Value Management System (EVMS), EM is now able to directly tie project performance with contractor's safety performance. The EVMS model to normalization clearly aligns EM's commitment to manage safety through project performance and offers the ability to normalize safety performance data by site, prime contractor, and corporate contractor.

For FY 2006, the NNSA ES&H Advisor and the Chief of Defense Nuclear Security continued their respective efforts with the weapons complex in addressing the Defense Nuclear Facilities Safety Board, and other Department of Defense safety concerns. The Deputy Administrator for Defense Programs assumed reporting authority for NNSA's site managers in order to strengthen and provide consistent guidance in safety and other management areas.

Expected Completion

Long-term correction expected with completion to be reassessed in FY 2006.

Nuclear Waste Disposal

Description of Issue

Construction of a repository for the disposal of spent nuclear fuel and high-level radioactive waste, authorized under the Nuclear Waste Policy Act, at Yucca Mountain, Nevada, has been delayed due to external factors and Program adjustments. Funding shortfalls and the scientific and technical challenges encountered in this first-of-a-kind endeavor to develop a disposal system that must potentially endure a compliance period of a million years have complicated the steady progress necessary to achieve previously published milestones. Mitigating the external factors for steady funding, finalizing the Environmental Protection Agency radiation protection standards, and addressing the licensing requirements of the Nuclear Regulatory Commission to submit a license application are the key to achieving the new milestones published in July 2006.

Actions Taken & Remaining

The introduction of the Nuclear Fuel Management and Disposal Act, in April 2006, seeks to provide stability, clarity, and predictability to the Yucca Mountain Project. The proposed legislation addresses many of the uncertainties that are currently beyond the control of the Department that have the potential to significantly delay the opening date for the repository. The most important factor is the ability of the Department to have access to the Nuclear Waste Fund to support the cash flows needed to implement the Project.

The Program adopted a primarily canister-based approach for handling commercial spent nuclear fuel. The revised approach enabled deployment of necessary surface and subsurface facilities in a manner that could accommodate future funding and income streams, and enhances repository operations and performance.

In January 2006, the Department designated Sandia National Laboratories as the lead laboratory to coordinate and organize all scientific work on the Project. Sandia National Laboratories has been tasked to review the existing infiltration model and to prepare a new model. The new model and the results will be used as part of the technical basis for the license application.

The Program is implementing management controls in accordance with DOE O 413.3, Program and Project Management for the Acquisition of Capital Assets, and performance metrics required under the Department's performance and accountability reporting system and OMB reporting requirements to ensure it achieves its revised milestones.

Expected Completion

Long-term correction expected.

Unclassified Cyber Security

Description of Issue

In July 2005, the Deputy Secretary established a Cyber Security Improvement Initiative. The goal of the initiative was to identify improvements that could be made in management, operational and technical cyber security controls within the Department. The first phase of the initiative resulted in the identification of a number of improvements that could be made to cyber security across the agency. The second phase involved conducting Site Assistance Visits (SAVs) to evaluate implementation of cyber security policies and standards and test the effectiveness of security controls. SAVs have been conducted at several sites, with planned expansion to other DOE operations.

Actions Taken & Remaining

The Cyber Security Project Team (CSPT), under the direction of SSA, and including representatives from the CIO, NNSA and ESE, was charged with reviewing systemic problems in the area of cyber security and developing an initial plan of action to improve cyber security across the DOE complex. Following the release of the DOE Cyber Security Project Team Summary Report and Plan of Action in November 2005, and management initiatives taken by the incoming CIO, the Secretary and Deputy Secretary of Energy, the Department embarked on an intensive effort to aggressively address systemic weaknesses in the implementation of cyber security. As part of this effort, the CIO coordinated with the Department's Senior Management to develop a plan to revitalize cyber security across the agency. This plan was formally approved by the Deputy Secretary on March 6, 2006. The plan incorporates the recommendations outlined in the CSPT report, establishes a new governance structure that emphasizes implementation and accountability at the Under Secretary level, and contains tactical and strategic elements for mitigating systemic weaknesses identified by internal and external oversight organizations.

NNSA initiated a reprogramming of FY 2006 funds to address some of the more immediate cyber security issues. Implementation plans for NNSA's enhanced cyber security directives have been developed by NNSA field organizations and are being put into place.

Expected Completion

Long term corrective action is expected due to the evolving nature of security threats.

— IMPROPER PAYMENTS INFORMATION ACT —

The Improper Payments Information Act (IPIA) of 2002, Public Law (P.L.) No. 107-300, requires agencies to annually review their programs and activities to identify those susceptible to significant improper payments. In addition, the Defense Authorization Act (P.L. No. 107-107) established the requirement for government agencies to carry out cost effective programs for identifying and recovering overpayments made to contractors, also known as “Recovery Auditing.” The OMB has established specific reporting requirements for agencies with programs that possess a significant risk of erroneous payments and for reporting on the results of recovery auditing activities.

While the Department does not have any programs that meet the OMB criteria for significant risk, improper payments are monitored on a quarterly basis to ensure our error rates remain at minimal levels. The Departmental erroneous payment rate has remained below one percent since the inception of our tracking program in FY 2002. To support

continued success, the Department has committed to pursue reduction of improper payments at any one of the Department’s payment sites that exceed a target rate of 1/10 of 1 percent for any quarter. Currently, the majority of all sites are below the target and the sites above target have identified corrective actions.

The Department has established a policy for implementing recovery auditing requirements. This policy prescribes requirements for identifying overpayments to contractors and establishes reporting standards to track the status of recoveries. Analysis of payment activities confirmed a low percentage of overpayments and a high recovery rate. The Department will continue to focus on both the identification and recovery of improper payments to maintain our record of low payment errors and ensure effective stewardship of public funds. Detailed information on IPIA reporting required by OMB is available in the Appendices.

Improper Payments (\$ in millions)				
	FY 2003		FY 2004	
	FY 2005		3rd Quarter FY 2006	
	Dollars and/or Rate		Dollars and/or Rate	
Total Payments	\$22,695		\$23,639	
Total Improper Payments	\$13.7	0.06%	\$20.3	0.09%
	\$14.5	0.06%	\$15.8	0.09%

Note: In FY 2004, Federal payroll payments were excluded due to the outsourcing of the Department’s Federal payroll function.

FY 2005 Overpayments to Contractors (\$ in millions)	
	Dollars
Total Overpayments	\$
Total Recovered	\$
Total Pending Recovery	\$
Total Unrecoverable	\$

Note: Overpayment information required for prior year only.



PERFORMANCE RESULTS

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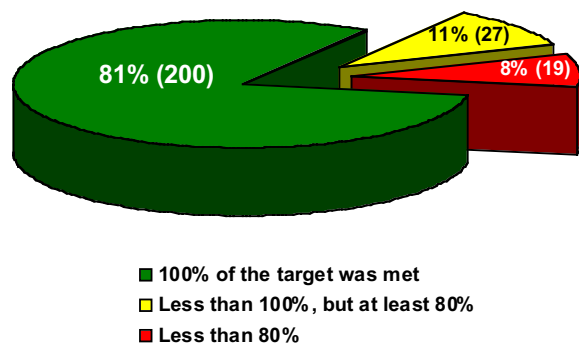
PERFORMANCE INTRODUCTION

The Performance Results section provides detailed information and an assessment of our progress for the Department's 59 program goals and 246 associated annual targets. Understanding the annual progress made toward outcome-oriented, multi-year program goals is a key indicator of whether the Department is, in turn, making progress toward its four strategic and seven general goals.

The following section is organized into seven sub-sections, each corresponding to one of the Department's seven general goals. Summary level information is provided at the start of each sub-section, and includes a tally of annual target performance, as well as current and prior year cost information. Detailed discussions of the program goals and associated annual targets that contribute to the general goal are presented with the following performance information:

- Descriptions and assessments of FY 2005 program goals and annual targets;
- Commentary for each program goal and annual target that explains the relevance of the performance results;
- Plans of action for resolving unmet annual targets;
- Supporting documentation that validates the performance results; and
- FY 2002 - FY 2004 performance results for program goals and annual targets (where applicable)¹.

The Department's FY 2005 annual target performance is depicted in the following chart, using the color coded-scheme described in the Program Performance section of the Management's Discussion and Analysis.



¹ Related prior year target performance data represents a summary of performance against similar/related target(s) from each year. As specific targets may vary annually, performance should not be interpreted as a trend of the current year target.

DETAILED PERFORMANCE

— GENERAL GOAL 1: NUCLEAR WEAPONS STEWARDSHIP —

General Goal 1: Nuclear Weapon Stewardship

Ensure that the nuclear warheads and bombs in the United States (U.S.) nuclear weapons stockpile are safe, secure, and reliable.

FY 2006 Annual Performance Targets

G-Green (100%)	Y-Yellow (=80%, <100%)	R-Red (<80%)	U- Undeter- mined

3rd Qtr Program Costs \$ in Millions:

FY 06	FY 05	FY 04	FY 03
R	Y	Y	Y

Program Goal: Directed Stockpile Work

Ensure that the nuclear warheads and bombs in the U.S. nuclear stockpile are safe, secure, and reliable. (NA GG 1.27)

Commentary:

FY 2006 Annual Targets

G 100 percent of warheads in the Stockpile are safe, secure, reliable, and available to the President for deployment (NA GG 1.27.1)

Commentary: On track to achieve the annual target of 100% of weapons as safe, secure, reliable, and available. The NNSA and Defense Threat Reduction Agency successfully reconciled the nuclear weapons stockpile content and disposition plans were provided for each weapon in non-operational or non-accepted status. This result is important because it ensures the overall availability of the nuclear weapons stockpile for national security use.

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

R 95 percent of items supporting Enduring Stockpile Maintenance completed (Annual percentage of prior-year non-completed items completed)(NA GG 1.27.3)

Commentary: The program is behind schedule and will be unable to meet the annual target of 95% Enduring Stockpile Maintenance completed/100% of annual percentage of prior-year non-completed items completed--the respective completion forecasts are 78%/74%, providing BWXT Pantex can complete 9 backlogged W80 test bed builds as unfunded "stretch" goals. During the third quarter, the authorization bases for the B61 and W87 were completed and operations were authorized at the Pantex Plant; the current B83 authorization basis reflects approval in the first quarter of FY07.

Documentation:

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **Y** FY 2003: **NA**

Program Goal: Directed Stockpile Work (con't)**G****Complete 34 percent progress (cumulative) for Weapons Council (NWC)-approved W761 Life Extension Program (LEP) activities. (NA GG 1.27.4)**

Commentary: On track to fully achieve the cumulative target of 34% (increase of 5%) in accordance with the W76-1 LEP baseline schedule. The projected cost to meet out-year deliveries exceed the FYNSP due to increased production cost, so revised cost is being developed for reallocation of funds from other, lower priority activities. This result is important because extending the life of the W76-1, the weapon system for Navy submarines, is on a highly success-oriented refurbishment schedule to meet DoD requirements and national security needs.

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **Y** FY 2003: **NA**

R**Complete 36 percent of progress (cumulative) for NWC-approved W803 Life Extension Program (LEP) activities. (NA GG 1.27.5)**

Commentary: Although on track in Q3 to achieve the cumulative target of 36% (increase of 6%), the W80-3 LEP was cancelled by the Nuclear Weapons Council (NWC) on May 10, 2006.

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **Y** FY 2003: **NA**

G**Complete 36 percent of progress (cumulative) for NWC-approved W803 Life Extension Program (LEP) activities. (NA GG 1.27.5)****Complete 40 percent of progress (cumulative) in completing NWC-approved B617/11 LEP activity (Longterm Output) (NA GG 1.27.6)**

Commentary: On track to fully achieve the cumulative target of 40% (increase of 13%) of activities in accordance with the B61 LEP baseline schedule. The B61-11 LEP first production unit is scheduled for Jan 07. This result is important because extending the life of the B61, the tactical bombs for the Air Force, is on a highly success-oriented refurbishment schedule to meet DoD requirements and national security needs.

Documentation:

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

R

0.5 percent reduction in projected W80 warhead production costs per warhead from established validated baseline, as computed and reported annually by the W80 LEP Cost Control Board. (NA GG 1.27.8)

Commentary: Although on track in Q3 to fully achieve the cumulative target of 0.5% reduction of projected W80 warhead production costs, the W80-3 LEP was cancelled by the NWC and the W80-3 LEP Cost Control Board will be disbanded.

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **Y** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
<input type="checkbox"/>	Y	Y	NA

Program Goal: Science Campaign Develop improved capabilities to assess the safety, reliability, and performance of the nuclear package portion of weapons without further underground testing; enhance readiness to conduct underground nuclear testing as directed by the President; and develop essential scientific capabilities and infrastructure. (NA GG 1.28)

Commentary:

FY 2006 Annual Targets

☐

Complete 25 percent of progress (cumulative) along the Primary Predictive Capability Roadmap for development and implementation of the new Quantification of Margins and Uncertainties (QMU) certification and assessment methodology. (NA GG 1.28.1)

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ G ☐ FY 2004: ☐ G ☐ FY 2003: ☐ NA

☐

Complete 25 percent of progress (cumulative) towards conducting the first hydrodynamics test/hydro shot on the Dual Axis Radiographic Hydrotest Facility (DARHT) to support assessment of nuclear performance required by the National Hydrodynamics Plan. (NA GG 1.28.2)

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ G ☐ FY 2004: ☐ Y ☐ FY 2003: ☐ NA

☐

Achieve 24 month readiness to conduct an underground nuclear test as established by National Security policy. (NA GG 1.28.3)

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ G ☐ FY 2004: ☐ G ☐ FY 2003: ☐ NA

☐

Complete 75 percent of annual hydrodynamic tests completed in accordance with the National Hydrodynamics Plan, to support the assessment of nuclear performance. (NA GG 1.28.4)

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ G ☐ FY 2004: ☐ R ☐ FY 2003: ☐ NA

Program Goal: Science Campaign (con't)

☐ **Achieve 95 percent of baseline for obtaining plutonium experimental data on the Joint Actinide Shock Physics Experimental Research (JASPER) facility. (NA GG 1.28.5)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

Program Goal: Engineering Campaign Provide validated models and simulation tools to improve surety technologies, radiation hardened capabilities; microsystems and microtechnologies production; component and material lifetime assessments; and predictive aging models and surveillance diagnostics. (NA GG 1.29)

FY 06	FY 05	FY 04	FY 03
<input type="checkbox"/>	Y	G	NA

Commentary:

FY 2006 Annual Targets

☐ **Complete 50 percent (cumulative) of the Microsystems and Engineering Sciences Applications (MESA) facility project, while maintaining a Cost Performance Index of 1.19. (NA GG 1.29.1)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

☐ **Complete 60 percent progress (cumulative) towards developing all improved surety improvements for the Life Extension Programs (LEPs) having Phase 6.3 beginning in FY 2010 or later. (NA GG 1.29.2)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

☐ **Deliver 24 percent (cumulative) of lifetime assessment, predictive aging models, and surveillance diagnostics. (NA GG 1.29.3)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2004: **Y** FY 2004: **G** FY 2003: **NA**

Program Goal: Engineering Campaign (con't)

- ☐ **Complete 55 percent (cumulative) of data sets used in developing tools and techniques to validate structural and thermal models and improve the capability for weapon assessment and qualification (NA GG 1.29.4)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

- ☐ **Complete 24 percent of progress (cumulative) towards development of the technologies and qualification tools needed to meet nuclear survivability requirements for nuclear components in the Life Extension Programs (LEPs). (NA GG 1.29.5)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
<input type="checkbox"/>	Y	Y	NA

Program Goal: Inertial Confinement Fusion Ignition And High Yield Campaign

Develop laboratory capabilities to create and measure extreme conditions of temperature, pressure, and radiation approaching those in a nuclear explosion and conduct weapons-related research in these environments. (NA GG 1.30)

Commentary:

FY 2006 Annual Targets

- ☐ **Complete 68 percent of progress (cumulative) toward creating and measuring extreme conditions for the FY 2010 stockpile stewardship requirement. (NA GG 1.30.1)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **Y** FY 2003: **NA**

- ☐ **Complete 67 percent of progress (cumulative) towards demonstrating ignition (simulating fusion conditions in a nuclear explosion) at the National Ignition Facility (NIF). (NA GG 1.30.2)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **Y** FY 2003: **NA**

Program Goal: Inertial Confinement Fusion Ignition And High Yield Campaign (con't)

- ☐ **Complete 81 percent (cumulative) of construction on the 192 beam National Ignition Facility (NIF). (NA GG 1.30.2)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **G** FY 2003: **NA**

- ☐ **Complete 26 percent (cumulative) of equipment fabrication to support ignition experiments at National Ignition Facility (NIF). (NA GG 1.30.3)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **R** FY 2003: **NA**

- ☐ **Provide 500 days to conduct stockpile stewardship experiments (totalled for all ICF facilities). (NA GG 1.30.4)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

- ☐ **Achieve an average of 9 hours per experiment required by the operational crew to prepare the facility for an experiment. (NA GG 1.30.6)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **NA** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
	G	Y	NA

Program Goal: Advanced Simulation and Computing Campaign provide leading edge, high-end simulation computer capabilities to meet weapons assessment and certification requirements, including weapon codes, weapon science, platforms, and computer facilities. (NA GG 1.31)

Commentary:

FY 2006 Annual Targets

- ☐ **Develop the initial baseline Primary Code for measuring ~~per~~ reviewed progress in completing milestones in the development and implementation of improved models and methods into integrated weapon codes and deployment to their users. (NA GG 1.31.1)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

- ☐ **Analyze 38 percent (cumulative) of the 31 weapon system components (primary/secondary/engineering system) using Advanced Simulation and Computing codes, as part of annual assessments and certifications. (NA GG 1.31.2)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

- ☐ **Attain maximum individual platform capacity of 100 TeraOPS (with 50 TB memory & 1 PetaB, (PB) storage). (NA GG 1.31.3)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **R** FY 2003: **NA**

- ☐ **Attain total production platform capacity of 172 TeraOPS. (NA GG 1.31.4)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

Program Goal: Advanced Simulation and Computing Campaign (con't)

☐ **Attain average cost of \$5.70M per teraflops for delivering, operating, and managing all Stockpile Stewardship Program (SSP) production systems (NA GG 1.31.5)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **G** FY 2004: ☐ **Y** FY 2003: ☐ **NA**

Program Goal: Pit Manufacturing and Certification Campaign Restore the capability and some limited capacity to manufacture pits of all types required by the nuclear weapons stockpile and plan for a long-term pit manufacturing facility to support the enduring stockpile. (NA GG 1.32)

FY 06	FY 05	FY 04	FY 03
<input type="checkbox"/>	<input type="checkbox"/> Y	<input type="checkbox"/> Y	<input type="checkbox"/> NA

Commentary:

FY 2006 Annual Targets

☐ **Complete 20 percent (cumulative) of major milestone toward restoration of manufacturing capability for all pit types in the enduring stockpile. (NA GG 1.32.2)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **Y** FY 2004: ☐ **G** FY 2003: ☐ **NA**

☐ **Complete 50 percent (cumulative) of major milestones completed toward FY 2007 W88 Pit Certification. (NA GG 1.32.3)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **Y** FY 2004: ☐ **R** FY 2003: ☐ **NA**

Program Goal: Pit Manufacturing and Certification Campaign (con't)

- ☐ **Complete 35 percent (cumulative) percentage of major milestones toward completion of the Modern Pit Facility (MPF), by Critical Decision (CD) Phase One. (NA GG 1.32.4)**
Commentary:
Documentation:
Related Prior Year Target Performance: FY 2005: ☐ Y ☐ FY 2004: ☐ Y ☐ FY 2003: ☐ NA
- ☐ **Complete 70 percent (cumulative) of major Nevada Test Site (NTS) milestones toward execution of Los Alamos National Laboratory (LANL) major subcritical experiment (SCE) activities in support of Major Assembly Release (MAR) for W88 warhead using LANL-manufactured W88 pits. (NA GG 1.32.5)**
Commentary:
Documentation:
Related Prior Year Target Performance: FY 2005: ☐ G ☐ FY 2004: ☐ G ☐ FY 2003: ☐ NA
- ☐ **Complete 30 percent (cumulative) of major milestones toward establishing a limited capability W88 pits/year at Los Alamos National Laboratory (LANL). (NA GG 1.32.6)**
Commentary:
Documentation:
Related Prior Year Target Performance: FY 2005: ☐ G ☐ FY 2004: ☐ NA ☐ FY 2003: ☐ NA

FY 06	FY 05	FY 04	FY 03
<input type="checkbox"/>	<input type="checkbox"/> Y	<input type="checkbox"/> Y	<input type="checkbox"/> NA

Program Goal: Readiness Campaign Develop or reestablish new manufacturing processes and technologies for qualifying weapon components for reuse. (NA GG 1.33)

Commentary:

FY 2006 Annual Targets

- ☐ **Complete 32 percent (cumulative) of the major technology development milestones through advanced design and production technology (ADAPT), including model-based manufacturing, enterprise integration, and process development, resulting in enabling technologies for Directed Stockpile Work and Readiness in Technical Base and Facilities. (NA GG 1.33.1)**
Commentary:
Documentation:
Related Prior Year Target Performance: FY 2005: ☐ Y ☐ FY 2004: ☐ NA ☐ FY 2003: ☐ NA

Program Goal: Readiness Campaign (con't)

☐ **Complete 22 percent (cumulative) of the major manufacturing process efficiencies by high explosives and weapon operations, stockpile readiness, and nonnuclear readiness to support stockpile production and Life Extension Program (LEP) requirements. (NA GG 1.33.2)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ Y ☐ FY 2004: ☐ Y ☐ FY 2003: ☐ NA ☐

☐ **Irradiate 240 (cumulative) Tritium Producing Burnable Absorber Rods in Watts Bar reactor. (NA GG 1.33.3)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ G ☐ FY 2004: ☐ G ☐ FY 2003: ☐ NA ☐

☐ **Complete 87 percent (cumulative) of Tritium Extraction Facility (TEF) project, while maintaining Cost Performance Index of 0.9-1.15. (NA GG 1.33.5)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ G ☐ FY 2004: ☐ G ☐ FY 2003: ☐ NA ☐

Program Goal: Readiness in Technical Base and Facilities Operations and Maintenance

Operate and maintain NNSA program facilities in a safe, secure, efficient, reliable and compliant condition including facility operating costs (e.g. utilities, equipment, facility personnel, training, and salaries); facility and equipment maintenance costs (staff, tools, and replacement parts); and environmental, safety, and health costs. (NA GG 1.34)

FY 06	FY 05	FY 04	FY 03
<input type="checkbox"/>	<input type="checkbox"/> G <input type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/>	<input type="checkbox"/> NA <input type="checkbox"/>

Commentary:

FY 2006 Annual Targets

☐ **Assure that that missionessential facilities are available on 90 percent of scheduled days. (NA GG 1.34.1)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ G ☐ FY 2004: ☐ G ☐ FY 2003: ☐ NA ☐

Program Goal: Readiness in Technical Base and Facilities Operations and Maintenance (con't)

☐ **Limit the Number of Reportable Accidents per 200,000 hours of work to less than 6.4. (NA GG 1.34.2)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **G** FY 2004: ☐ **G** FY 2003: ☐ **NA**

☐ **Achieve an annual NNSA complexwide aggregate Facility Condition Index (FCI) of less than 9 percent, as measured by deferred maintenance per replacement plant value, for all mission essential facilities and infrastructure. (NA GG 1.34.3)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **G** FY 2004: ☐ **G** FY 2003: ☐ **NA**

FY 06

FY 05

FY 04

FY 03

Program Goal: Readiness in Technical Base and Facilities Construction Plan, prioritize, and construct state-of-the-art facilities, infrastructure, and scientific tools (that are not directly attributable to DSW or a campaign) within approved baseline cost and schedule. (NA GG 1.35)

☐ ☐ **Y** ☐ **Y** ☐ **G**

Commentary:

FY 2006 Annual Targets

☐ **Initiate designs, attain Critical Decision (CD) Phase One, or cancel for cause, 3 projects. (NA GG 1.35.1)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **G** FY 2004: ☐ **R** FY 2003: ☐ **NA**

☐ **Initiate construction (CB) on, or cancel for cause, 4 projects. (NA GG 1.35.2)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **G** FY 2004: ☐ **Y** FY 2003: ☐ **NA**

Program Goal: Readiness in Technical Base and Facilities Construction (con't)

☐ **Completed or attained CM within approved scope, cost, and schedule baselines, for 9 projects. (NA GG 1.35.3)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **G** FY 2003: **NA**

Program Goal: Secure Transportation Assets (STA) Program Safely and securely transport nuclear weapons, weapons components, and Special Nuclear Materials (SNM) to meet projected Department of Energy (DOE), Department of Defense (DoD), and other customer requirements. (NA GG 1.36)

FY 06	FY 05	FY 04	FY 03
Y	G	Y	NA

Commentary:

FY 2006 Annual Targets

☐ **100 percent of shipments completed safely and securely without compromise/loss of nuclear weapons/components or a release of radioactive material (Annual Outcome) (NA GG 1.36.01)**

Commentary: On track to fully achieve the annual target of completing 100% of the shipments safely and securely. This result is important because it indicates successful mission accomplishment, especially in light of the increased risks and threats to the Nuclear Security Enterprise.

Documentation: Office of Secure Transportation internal monitoring and reports.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

☐ **Achieve annual cost per convoy of \$1.8 million. (NA GG 1.36.02)**

Commentary: Not on track to achieve the annual target of \$1.80 M per convoy. This metric is directly related to the number of convoys completed and, if only 90 convoys are completed, the result would be \$2.17M.

Plan of Action: Since this metric is dependent on number of convoys, increasing convoys will improve the result (see below). This result is important because it represents the cost efficiencies of capacity utilization—a continuous decrease in cost from a baseline of \$2.65 M in FY02.

Documentation: Program analysis based on number of convoys conducted, budget, and MRT reports.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

Program Goal: Secure Transportation Asset (con't)

R | Complete 115 secure convoys. (NA GG 1.36.0)

Commentary: Not on track to achieve the annual target of 115 convoys. Completed only 43 convoys at the end of FY06/2Q - lower demand than expected. Planned work for DOE EM has now been delayed until FY07, but was included in the original STA workload model for FY06. The current workload model (without EM requests) predicts approximately 90 convoys for the year.

Plan of Action: The program will work with customers to try to increase shipment requests; however, the under-utilized capacity of the first three quarters cannot be recaptured. This result is important because it reflects unutilized capacity that the current agent strength would have supported.

Documentation: Shipment reports and data from TRIPS, a program convoy-tracking database.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

G | Achieve 3 Safeguard Transporters (SGTs) in operation. (NA GG 1036)

Commentary: On track to achieve the cumulative target of 36 SGTs in operation (increase of 3). Trailer #34 was delivered in FY06/1Q and Trailer #35 was delivered in FY06/2Q; next delivery (#36) is scheduled for FY06/4Q. This result is important because an increase in the SGT capability supports the STA increase in mission capacity.

Documentation: Quality Assurance Inspection program documents from Kansas City Site Office.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **Y** FY 2003: **NA**

Y | Maintain 35 Federal Agents at the end of the year. (NA GG 1035)

Commentary: Not on track to achieve target of 355; expect agent end-strength of approximately 347. There have been 26 agent losses for FY06 (retirements, resignations, transfers, etc.) which is higher than expected. Agent strength at end of FY06/2Q is 324 and we expect the next recruit class to net at least 23 agents above losses.

Plan of Action: Maintain systematic approach to advertisement, recruiting, screening, and qualification of agents to overcome fluctuations in class size and personnel losses. This result is important because it is a key milestone in reaching agent strength of 420 by the end of FY08, necessary for increased mission capability/customer support.

Documentation: Program Federal Personnel database.

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **G** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
G	G	Y	NA

Program Goal: Nuclear Weapons Incident Response Program responds to and mitigates nuclear and radiological incidents worldwide. (NA GG 1.37)

Commentary:

FY 2006 Annual Targets

G

Ensure Emergency Operations Readiness Index of 91. This index measures the overall organizational readiness to respond to and mitigate radiological or nuclear incidents worldwide.

Commentary: On track to achieve the annual target of an Emergency Operations Readiness Index of 91 out of 100 (3Q Index of 91). Made considerable progress since the 2Q in the areas of training, review of security plans, and equipment deliveries. This readiness rating indicates that we are ready to handle the larger, more complex responses for which the organization is sized and that any corrective action plans needed are in place to enhance readiness. This result is important because it assesses emergency response readiness and helps program managers identify and fix deficiencies within key elements of the program.

Documentation: ?

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

Program Goal: Nuclear Weapons Incident Response (con't)

☐

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: FY 2004: FY 2003:

☐

Conduct 9 "nonnotice" emergency management exercises. (NA GG 1.37.3)

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: FY 2004: FY 2003:

☐

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: FY 2004: FY 2003:

☐

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: FY 2004: FY 2003:

☐

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: FY 2004: FY 2003:

FY 06	FY 05	FY 04	FY 03
G	G	G	G

Program Goal: Facilities and Infrastructure Recapitalization Program Mission is to restore, rebuild and revitalize the physical infrastructure of the nuclear weapons complex. (NA GG 1.38)

Commentary:

FY 2006 Annual Targets

Deferred Maintenance Reduction of \$60 million Annual dollar value; and cumulative percentage of FY 2003 deferred maintenance baseline of \$1.2 billion; funded for elimination by FY 2009. (NA GG 1.3801)

Commentary: On track to fully achieve the annual target of funding the elimination of an additional \$60M (cumulative total of 28%) of the FY03 deferred maintenance baseline of \$1.2 billion. The annual target has been adjusted to reflect the impact of the final FY06 appropriation that was ~\$130M below the request. Through the third quarter FY2006, over 55 projects have been funded that will reduce NNSA's deferred maintenance by over \$117M. This result is important because it demonstrates progress in improving nuclear weapons complex facilities conditions by reducing the deferred maintenance backlog.

Documentation: FY 2006 FIRP Work Authorizations

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

Footprint Reduction of 175,000 square feet: Annual gross square foot (gsf) of NNSA excess facilities space funded for elimination; and cumulative percentage of FY 2003 total goal of three million gsf eliminated (NA GG 1.3802)

Commentary: On-track to fully achieve the annual target to fund the elimination of an additional 175,000 gross square feet (gsf) (cumulative total of 79%) of the three million gsf goal. The annual target has been adjusted to reflect the impact of the final FY06 appropriation that was ~\$130M below the request. Through the third quarter FY2006, twelve disposition projects have been funded that will reduce NNSA's footprint by over 312,000 gsf. This result is important because it demonstrates progress in improving nuclear weapons complex facilities cost-effectiveness by eliminating excess facility space.

Documentation: FY 2006 FIRP Work Authorizations

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

Annual NNSA complex-wide aggregate Facility Condition Index (FCI) Reduction of 7.4 percent as measured by deferred maintenance per replacement plant value, for mission-essential facilities and infrastructure (the industry standard is below 5%) (NA GG 1.3803)

Commentary: On track to fully achieve the annual target of reducing the aggregate Facility Condition Index (FCI) for all mission essential facilities and infrastructure to 7.4%. Projected end of year FCI for mission-essential facilities and infrastructure as reported by sites in their FY2007 Ten-Year Site Plans in March 2006 is approximately 6.9%. This result is important because it demonstrates progress in improved facilities conditions and increased operational effectiveness and efficiency.

Documentation: Facilities Information Management System (FIMS)

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

FY 06
FY 05
FY 04
FY 03

☐ **Y** **Y** **Y**

Program Goal: Safeguards and Security Protect NNSA personnel, facilities, nuclear weapons, and information from a full spectrum of threats, most notably from terrorism, which has become of paramount concern post September 11, 2001. (NA GG 1.39)

Commentary:

FY 2006 Annual Targets

☐

Ensure that 65 percent (cumulative) of Physical Security reviews conducted by the Office of Independent Oversight and Performance Assurance (OA) at NNSA sites result in the rating of "effective" (based on last OA review at each site over 6 physical security topical areas). (NA GG 1.39.2)

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **R** FY 2003: **NA**

☐

Ensure that 80 percent (cumulative) of Cyber Security reviews conducted by the Office of Independent Oversight Performance Assurance (OA) at NNSA sites result in the rating of "effective" (based on last OA review at each site over 2 Cyber Security topical areas). (NA GG 1.39.3)

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

☐

Ensure that 90 percent of Office of Independent Oversight and Performance Assurance (OA), Inspector General, and General Accountability Office findings have an approved corrective action plans in place within 60 days from receipt of final report. (NA GG 1.39.4)

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

Program Goal: Safeguards and Security (con't)

☐ **Complete the processing needed to grant Q Security Clearance for federal and contractor employees in the NNSA complex, other than headquarters (does not include day OPM or FBI background checks), in 85 annual average calendar days per applicant. (NA GG 1.39.6)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: FY 2004: FY 2003:

☐ **Complete 12.5 percent (cumulative) progress, measured in milestones completed, towards implementation of the May 2003 Design Basis Threat (DBT) policy at NNSA sites. (NA GG 1.39.7)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: FY 2004: FY 2003:

☐ **Destroy 10 percent (cumulative) of pieces of accountable classified removable electronic media (CREM) at Los Alamos National Laboratory (LANL). (NA GG 1.39.8)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: FY 2004: FY 2003:

Program Goal: Office of the Administrator (Shared Between General Goal One and

Two) Create a well-managed, inclusive, responsive, and accountable organization through the strategic management of human capital; enhanced cost-effective utilization of information technology; and greater integration of budget and performance data. (NA GG 1/2.50)

FY 06	FY 05	FY 04	FY 03
<input type="checkbox"/>	<input type="text" value="G"/>	<input type="text" value="Y"/>	<input type="text" value="NA"/>

Commentary:

FY 2006 Annual Targets

☐ **Fill 96 percent of approved Managed Staffing Plan positions. (NA GG 1/2.50.1)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **G** FY 2004: ☐ **G** FY 2003: ☐ **NA**

Program Goal: Office of the Administrator (con't)

☐ **Achieve an average NNSA Program score of 75 percent (cumulative) in OMB PART assessment. (NA GG 1/2.50.3)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **G** FY 2004: ☐ **G** FY 2003: ☐ **NA**

☐ **Consolidate 50 percent of NNSA federal offices to the NNSA Information Technology (IT) Com Environment/Service Center. (NA GG 1/2.50.6)**

Commentary:

Documentation:

Related Prior Year Target Performance: FY 2005: ☐ **G** FY 2004: ☐ **G** FY 2003: ☐ **NA**

DETAILED PERFORMANCE

— GENERAL GOAL 2: NUCLEAR NONPROLIFERATION —

General Goal 2: Nuclear Nonproliferation	FY 2006 Annual Performance Targets			
<i>Provide technical leadership to limit or prevent the spread of materials, technology, and expertise relating to weapons of mass destruction; advance the technologies to detect the proliferation of weapons of mass destruction worldwide; and eliminate or secure inventories of surplus materials and infrastructure usable for nuclear weapons.</i>	G-Green (100%)	Y-Yellow (=80%, <100%)	R-Red (<80%)	U-Undetermined
	3 rd Qtr Program Costs (\$ in Millions):			

FY 06	FY 05	FY 04	FY 03	Program Goal:Nonproliferationand VerificationResearch and Development Develop new technologies to improve United States (U.S.) capabilities to detect and monitor nuclear weapons production, proliferation, and prohibited nuclear explosions worldwide. (NA GG 2.40)
G	Y	Y	G	
<i>Commentary:</i>				
<u>FY 2006Annual Targets</u>				
G	Achieve 10 percentof progress toward demonstrating the next generation of technologies and methods to detect Uranium235 Enrichment activities.(NA GG 2.40.1)			
<i>Commentary:</i> On track to fully achieve the annual target of 10% cumulative progress towards demonstrating the next generation of technologies to detect uranium enrichment activities. This result is important because it increases the U.S. capability to detect clandestine nuclear weapons production activities.				
<i>Documentation:</i> Classified "Goals, Objectives and Requirements" document for U-235 Production Detection				
<i>Related Prior Year Target Performance:</i> FY 2005: G FY 2004: G FY 2003: NA				
G	Achieve 10percentof progress toward demonstrating the next generation of technologies and methods to detect Plutonium Reprocessing activities.(NA GG 2.40.2)			
<i>Commentary:</i> On track to fully achieve the annual target of 10% cumulative progress towards demonstrating the next generation of technologies to detect Plutonium Reprocessing activities. This result is important because it increases the U.S. capability to detect clandestine nuclear weapons production activities.				
<i>Documentation:</i> Classified "Goals, Objectives and Requirements" document for Pu Production Detection				
<i>Related Prior Year Target Performance:</i> FY 2005: G FY 2004: G FY 2003: NA				
G	Achieve 10 percentof progress toward demonstrating the next generation of technologies and methods to detect SpecialNuclear Material movement.(NA GG 2.40.3)			
<i>Commentary:</i> On track to fully achieve the annual target of 10% cumulative progress towards demonstrating the next generation of technologies to detect Special Nuclear Material movement. This result is important because it improves U.S. capability detect the illicit transport and diversion of special nuclear material (SNM).				
<i>Documentation:</i> OOU "Goals, Objectives and Requirements" document for SNM Movement Detection & Radiation Sensing				
<i>Related Prior Year Target Performance:</i> FY 2005: G FY 2004: Y FY 2003: NA				

DRAFT

G

Achieve index score of 90 percent that summarizes the status of all NNSA nuclear explosion monitoring R&D deliveries that improve the nation's ability to detect nuclear explosions. (NA GG 2.40.4)

Commentary: On track to fully achieve the annual target of 90% of nuclear explosion monitoring (NEM) deliveries. This result is important because it tracks the timeliness in delivering NEM products within customer schedules and potential impacts on the nation's ability to detect nuclear explosions.

Documentation: Project quarterly reports that list publications for each project and WebPMIS Summary Report No. 15.4

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

G

Achieve 200 articles published in peer reviewed professional journals/ forums representing leadership in advancing science and technology knowledge. (NA GG 2.40.5)

Commentary: On track to fully achieve the annual target of 100% of active research projects receiving independent R&D peer assessments. This result is important to verify scientific quality and mission relevance of each research project.

Documentation: Project quarterly reports that list publications for each project.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

G

Achieve 100 percent of active research projects for which an independent R&D peer assessment of the project's scientific quality and mission relevance has been completed during the second year of effort (and again within each subsequent three year period for those projects found to be of merit). (NA GG 2.40.6)

Commentary: On track to fully achieve the annual target of 200 peer-reviewed publications. This result is important because it demonstrates the program is a leader in advancing science and technology knowledge.

Documentation: WebPMIS Independent Review Summary Report No. 15.6, Individual project Independent Review Reports and site visits.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **Y** FY 2003: **NA**

FY 06

Y

FY 05

Y

FY 04

R

FY 03

NA

Program Goal: Elimination of Weapons Grade Plutonium Production Reactors

Elimination of Weapons-Grade Plutonium Production (EWGPP): Enables the Russian Federation to permanently cease production of weapons-grade plutonium by replacing plutonium-producing nuclear reactors with fossil-fueled power plants to provide alternative sources of heat and electricity and provide for the shutdown of the reactors. (NA GG 2.42)

Commentary:

FY 2006 Annual Targets

Y**Achieve 55 percent of progress towards refurbishing a fossil plant in Seversk facilitating shut down of two weapons-grade plutonium production reactors (NA GG 2.42.1)**

Commentary: Slightly behind schedule to achieve the annual target of 55% cumulative percentage completion of the fossil plant at Seversk. The project only achieved 94% of expected results for the third quarter but is still on track to meet the annual target. The lower percentage than forecasted is because of delays in letting task orders due to incomplete contracting data from the Russians. This resulted in a lower than forecasted invoicing, thus causing a lower than forecasted costing. The projected cumulative costs were to be \$178.3 M and the actual cumulative costs were \$166.9 M.

Documentation: The Seversk monthly progress report for September.

Action Plan: A recovery plan to improve procedures has been implemented, and the 55% goal will be achieved at year end. This result is important because completion of the fossil plant will replace energy capacity from two of the three Russian plutonium production reactors allowing them to be shutdown.

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **Y** FY 2003: **NA**

G**Achieve Annual Costs Performance Index (CPI) of 1.0 for Seversk construction as measured by the ratio budgeted costs of work performed to actual costs of work performed (NA GG 2.42.2)**

Commentary: On track to fully achieve the annual target cost performance index of 1.0 at Seversk. This assessment is based on the best available DOE cost data. This result is important because it represents efficiency in constructing the Seversk fossil plant.

Documentation: The Seversk monthly progress report for September.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

G**Achieve 9.6 percent of progress towards constructing a fossil plant in Zheleznogorsk facilitating shut down of one weapons-grade plutonium production reactor (NA GG 2.42.3)**

Commentary: On track to achieve the annual target of 9.6 cumulative percentage. The Deputy Secretary approved the project's performance measurement baseline on February 2, 2006. With the new baseline, the targets for the outyears will be revised to be consistent with the approved funding and the performance measurement baseline. Currently, the project is performing to the baseline schedule and the risk of not meeting the 2006 target of 9.6% is low. This result is important because completion of the fossil plant will replace energy capacity from one of the three Russian plutonium production reactors allowing it to be shutdown.

Documentation: The Zheleznogorsk monthly progress report for September.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06

G

FY 05

G

FY 04

R

FY 03

Y**Program Goal: Nonproliferation and International Security**

Nonproliferation and International Security (N&IS): Prevent and counter weapons of mass destruction (WMD) proliferation by providing policy and technical support to implement and monitor transparent WMD reductions; strengthen indigenous WMD safeguards and export controls systems in other countries; transition WMD expertise and infrastructure to peaceful purposes; and improve international and multinational WMD safeguards, export control, and interdiction regimes. (NA GG 2.44)

Commentary:

FY 2006 Annual Targets

G

Assure 282 metric tons of Russian weapons-usable HEU that U.S. experts have confirmed as permanently eliminated from the Russian stockpile under the HEU Purchase Agreement. (NA GG 2.44.1)

Commentary: On track to fully achieve annual target of assuring that 282 metric tons of weapons-usable High Enriched Uranium (HEU) is permanently eliminated from the Russian stockpile. This result is important because it shows that the activities of the HEU Purchase Agreement continue to be completed, and that the HEU is diluted so it can no longer be used in a weapon.

Documentation: Monthly summary reports of HEU and LEU shipments, amounts, and schedule.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

G

Achieve 11,800 of the Global Initiatives to Prevent Proliferation (GIPP) target population of displaced Russian and FSU WMD experts who are currently employed in GIPP grants or long-term private sector jobs (and cumulative number who are employed in long-term private sector jobs resulting from NIS grants). (NA GG 2.44.2)

Commentary: On track to fully achieve annual target of 11,800 (4,100) for WMD experts employed in GIPP grants (or long-term private sector jobs). This result is important because it prevents the migration of weapons of mass destruction expertise, to terrorists or states of concern, by redirecting displaced scientists and personnel to peaceful, sustainable civilian work.

Documentation: IPP Company survey conducted by the United States Industry Coalition (USIC), NCI quarterly narrative lab reports and IPP lab reports.

Related Prior Year Target Performance: FY 2005: **NA** FY 2003: **NA** FY 2002: **NA**

G

Achieve 70 percent of non-USG (private sector and foreign government) project funding contributions obtained relative to cumulative USG GIPP funding contributions. (NA GG 2.44.3)

Commentary: On track to fully achieve the annual target of 70% of non-USG project funded contributions relative to USG GIPP funded contributions. This result is important because it supports sustainable projects that prevent the migration of weapons of mass destruction expertise to terrorists or states of concern.

Documentation: USIC Company survey; CRADAs; NCI Lab Survey; NCI MIS database.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

G

Achieve 5 technologies transferred to international regimes and other countries to prevent and counter WMD proliferation and nuclear-related terrorism. (NA GG 2.44.4)

Commentary: On track to fully achieve the annual target of transferring 5 technologies to international regimes and other countries to prevent and counter WMD proliferation and nuclear-related terrorism. This result is important because it provides policy support to the International Atomic Energy Agency (IAEA) on verification technologies concerning countries suspected of having clandestine nuclear weapons programs.

Documentation: USIC Company Survey; NCI Lab Survey; NCI MIS database.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

G

Achieve 1,160 of international and domestic experts (e.g., IAEA inspectors, export control officers, physical protection personnel) trained in nonproliferation to fulfill the President's policy delineated on 11 February 2004 and implement the U.S.-sponsored UN Security Council Resolution 1540 criminalizing proliferation (NA GG 2.44.5)

Commentary: On track to fully achieve annual target of 1,160 of international and domestic experts trained in nonproliferation. This result is important to fulfill the President's policy delineated on 11 February 2004 and to implement the U.S.-sponsored UN Security Council Resolution 1540 criminalizing proliferation because it educates experts in the prevention of proliferation of nuclear and nuclear-related materials, equipment and technology.

Documentation: Attendance sign in sheets, training records and participant lists all collected and documented by monthly lab reports, periodic trip reports, and tracking systems such as the International Nonproliferation Export Control Program's AAR system.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

Program Goal: International Nuclear Materials Protection and Cooperation

Program prevents nuclear terrorism by working in Russia and other regions of concern to (1) secure and eliminate vulnerable nuclear weapons and weapons-usable material; and (2) install detection equipment at border crossings and Megaports to prevent and detect the illicit transfer of nuclear material. (NA GG 2.46)

FY 06

FY 05

FY 04

FY 03

G**Y****Y****Y**

Commentary:

FY 2006 Annual Targets

G

Secure 175 buildings with weapons usable material. (NA GG 2.461)

Commentary: On track to fully achieve the annual target of securing a cumulative total of 175 buildings with weapons usable material. This result is important because it prevents the theft/diversion of vulnerable weapons usable material for use by terrorists.

Documentation: Various contract deliverable documents including photos, periodic site visits, and assurance reports.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

G

Secure 53 warhead sites with completed MPC&A upgrades (NA GG 2.462)

Commentary: On track to fully achieve the annual target of securing a cumulative of 53 warheads sites. This result is important because it prevents the theft/diversion of vulnerable nuclear weapons for use by terrorists.

Documentation:

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

G

Blend down a cumulative total of 8.6 metric tons of HEU converted to LEU (NA GG 2.463)

DRAFT

Commentary: On track to fully achieve the annual target of blending down a cumulative total of 8.6 metric tons of HEU to LEU. This result is important because it prevents the theft/diversion of excess HEU.

Documentation: Material Consolidation and Conversion project and Downblending Conversion Summary.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

G

**Complete installation of radiation detection equipment at a cumulative total of 114 sites.
(NA GG 2.46.4)**

Commentary: On track to fully achieve the annual target of completing installations of radiation detection equipment at a cumulative total of 114 sites (including 10 Megaports). This result is important because it provides host governments with the technical means to detect, deter and interdict illicit trafficking of nuclear and other radioactive materials.

Documentation: All sites can be verified as completed via the documentation of an Acceptance Testing Report.

Related Prior Year Target Performance: FY 2005: FY 2004: FY 2003:

G

Achieve a cumulative cost of \$5.5 million dollars per metric ton to complete rapid security upgrades on Russian weapons usable nuclear material (NA GG 2.46.5)

Commentary: On track to fully achieve the annual target of a cumulative cost of \$5.5 million dollars per metric ton to complete rapid security upgrades on Russian weapons usable nuclear material. This result is important because it represents efficiency in securing vulnerable weapons usable material from theft/diversion.

Documentation: Completed task order deliverables, site visits, and assurance reports.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

FY 06

FY 05

FY 04

FY 03

Program Goal: Fissile Missions Disposition Eliminate surplus Russian plutonium and surplus United States (U.S.) plutonium and highly enriched uranium (NA GG 2.47)

G**R****Y****R**

Commentary:

FY 2006 Annual Targets

G

Complete a cumulative total of 17% of the facility and equipment design, construction, and cold start-up activities for the Mixed Oxide (MOX) Fuel Fabrication Facility (NA GG 2.471)

Commentary: On track to fully achieve the annual target of completing a cumulative total of 17% of the facility and equipment design, construction, and cold start-up activities completed for the MOX facility. This result is important because it demonstrates progress toward the Department's goal of disposing of 34 metric tons of surplus U.S. weapon-grade plutonium.

Documentation: Results reported in monthly Earned Value Management System reports prepared by

design contractor.

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **Y** FY 2003: **NA**

G

Achieve 24 percent of the design, construction, and cold start activities completed for the Pit Disassembly and Conversion Facility (PDCF) (NA GG 2.472)

Commentary: On track to fully achieve the annual target of completing a cumulative total of 24% of the design, construction, and cold start-up activities completed for the PDCF. This result is important because it demonstrates progress toward the Department's goal of disposing of 34 metric tons of surplus U.S. weapon-grade plutonium.

Documentation: Results reported in monthly Earned Value Management System reports prepared by design contractor.

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **Y** FY 2003: **NA**

G

Achieve 93 metric tons of surplus U.S. highly enriched uranium (HEU) downblended or shipped for downblending (EFFICIENCY MEASURE) (NA GG 2.473)

Commentary: On track to fully achieve the annual target of down blending or shipping for down blending 93 metric tons of surplus U.S. HEU. This result is important because it is contributing to the Department's goal of disposing of surplus U.S. HEU.

Documentation: Results reported in monthly receipt reports provided by BWX Technologies Nuclear Products Division, Nuclear Fuel Services, and SRS.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
G	Y	NA	NA

Program Goal: Secure High-Risk Materials and Equipment Remove and/or secure high-risk nuclear and radiological materials and equipment around the world that pose a potential threat to the United States and the international community. (NA GG 2.64)

Commentary:

FY 2006 Annual Targets

G

Convert 46 (cumulative) targeted research/test reactors from HEU to LEU fuel. (NA GG 2.64.1)

Commentary: On track to fully achieve the FY06 annual target of converting a cumulative total of 46 facilities from HEU to LEU fuel. In October 2005, two research reactors converted to LEU fuel -- the VR-1 Sparrow at the Czech Technical University in Prague and the HFR Petten reactor in The Netherlands. In January 2006, the Russian-supplied critical assembly in Libya was converted to LEU. At the end of FY2006 3Q a cumulative total of 43 reactors had been converted. Two U.S. university reactors, the University of Florida and Texas A&M University are on schedule to convert to LEU in mid and late September 2006, respectfully. The Libya IRT-1 research reactor is scheduled to convert to LEU in late September 2006. This result is important because to date conversion of these reactors has reduced the amount of civil commerce in HEU by 250/kg per year.

Documentation: Annual letter from ANL.

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **NA** FY 2003: **NA**

G

Repatriate 232 kilograms (cumulative) of HEU fresh and/or spent fuel from Soviet-supplied research reactors to Russia. (NA GG 2.64.2)

Commentary: Slightly behind schedule to fully achieve the FY06 target of repatriating to Russia a cumulative total of 232 kgs of HEU fresh and/or spent fuel from Soviet-supplied research reactors (current pace would achieve 228.5 kgs). The current cumulative total of fuel repatriated is 185 kgs. Four spent nuclear fuel (SNF) shipments from Uzbekistan containing 63 kgs of HEU SNF have been completed to year-to-date. Fresh fuel shipments from Libya (3.4kgs) and Poland (40.1kgs) are expected later this fiscal year. Delays in reaching agreements with countries to return HEU fuel to Russia has impacted this target. Action Plan: We are working with Germany, Vietnam, and Ukraine [Sevastopol](21.8kgs) to attempt to complete a shipment from one of these countries before the end of the fiscal year. We are working closely with State Department and other organizations to develop strategies to ensure that countries are willing to return their Russian-origin HEU. This result is important because this effort will reduce the amount of weapons-usable material around the world.

Documentation: Official NNSA Press Releases and other news reports.

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **NA** FY 2003: **NA**

G

Return 7,115 fuel assemblies (cumulative) containing U.S.-origin spent fuel from foreign research reactors. (NA GG 2.64.3)

Commentary: Exceeded the FY06 annual target of accepting a cumulative total of 7,115 fuel assemblies containing U.S.-origin spent fuel from foreign research reactors. At the end of FY 2006 3Q, a cumulative total of 7,121 fuel assemblies had been returned. A combined shipment from Austria and Greece containing 68 fuel assemblies was received at Savannah River Site (SRS) in late December. A combined shipment from the Netherlands and Germany containing 270 fuel assemblies was received at SRS in June. This result is important because the recovery of foreign research reactor spent nuclear fuel works to minimize spent HEU worldwide.

Documentation: FRR SNF Scorecard (Lab report issued after receipt of shipments)

FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

G

Recover 13,650(cumulative) U.S. excess sealed sources. (NA GG 2.64.4)

Commentary: On track to fully achieve the FY06 annual target of a cumulative 13,650 sources recovered. At the end of the FY 2006 3Q, a cumulative total of 12,758 sources had been recovered. The result is important because it reduces the amount of excess and unwanted radioactive material that could be used in radiological dispersal devices.

Documentation: Bi-weekly recovery report.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

DRAFT

G Secure 498 high priority sites (cumulative) with vulnerable radiological material. (NA GG 2.64)

Commentary: On track to fully achieve the FY06 annual target of 498 sites secured. At the end of FY 2006 3Q, a cumulative total of 433 sites have been secured. This result is important because it reduces the risk posed by radioactive materials worldwide that could be used in radiological dispersal devices.

Documentation: Monthly report from the IRTR integrated contract database.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

DETAILED PERFORMANCE

— GENERAL GOAL 3: NAVAL REACTORS —

General Goal 3: Naval Reactors

Provide the Navy with safe, militarily effective nuclear propulsion plants and ensure their continued safe and reliable operation.

FY 2006 Annual Performance Targets

G-Green (100%)	Y-Yellow (=80%, <100%)	R-Red (<80%)	U- Undeter- mined

3rd Qtr Program Costs (\$ in Millions) 5\$8

FY 06
FY 05
FY 04
FY 03

G **G** **G** **G**

Commentary: **Missing**

Program Goal: Naval Reactors Provide the Navy with safe, militarily effective nuclear propulsion plants and ensure their continued safe and reliable operation.

FY 2006 Annual Targets

G

Achieve 134 million cumulative miles of safe reactor plant operation supporting National security requirements (NA GG 3.49.1)

Commentary: On track to fully achieve the annual target of 134 million miles safely steamed. This result is important because it tracks the safety and reliability of operating nuclear propulsion plants.

Documentation: Results are documented in the "Commissioned Ship Operating Reports."

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Achieve 34 percentag of completion on the Transformational Technology Core (TTC) reactor plant design.(NA GG 3.49.2)

Commentary: On track to fully achieve the annual target of completing a cumulative 34% of the Transformational Technology Core (TTC) reactor plant design. The annual target has been adjusted to reflect the impact of the final FY06 appropriation that was below the request and future Joule reporting will reflect this change. This result is important because it provides the Navy with next-generation propulsion plant technology that will provide an energy increase to the Navy's submarines, extending the ship life by as much as 30%

Documentation: Results are documented in the TTC Planning Estimates.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

Program Goal: Naval Reactors (con't)

G

Complete 75 percent (cumulative) of completion on the next-generation aircraft carrier reactor plant design (NA GG 3.49.3)

Commentary: On track to fully achieve the annual target of completing a cumulative 75% of the next-generation aircraft carrier reactor plant design. This result is important because it provides the Navy with next-generation aircraft carrier propulsion plant technology that increases core energy, provides nearly three times the electric plant generating capability and will require half of the reactor department sailor's needed as compared to today's CVNs. This will enable the Navy to meet current forecasted operational requirements.

Documentation: Results are documented in the CVN 21 Propulsion Plant Planning Estimate.

Related Prior Year Target Performance: FY 2004: **G** FY 2003: **G** FY 2002: **G**

G

Achieve 100 percent of annual program operations with adverse impact on human health or the quality of the environment (NA GG 3.49.4)

Commentary: On track to fully achieve the annual target of ensuring that 100% of program operations have no adverse impact on human health or the quality of the environment. 3rd Q performance is rated satisfactory, based on continuing assessments performed in these areas. A review of radiation monitoring results through June 30, 2006 confirms that no personnel have exceeded rem exposure this fiscal year thus far. This result is important because it assesses human health and environmental risks associated with program operations.

Documentation: Results are documented in Report RA-05, Occupational Safety, Health and Occupational Medicine Report, the Annual Environmental Monitoring Report, and Report NT-05-3, Occupational Radiation Exposure for NR Department of Energy Facilities.

Related Prior Year Target Performance: FY 2004: **G** FY 2003: **G** FY 2002: **G**

G

Achieve 90 percent annual utilization factor for operational test reactor plants (NA GG 3.49.5)

Commentary: On track to fully achieve the annual target of a utilization rate of 90% (YTD utilization rate is 91%). The annual target is on track because 2nd quarter performance made up for unplanned down time during the 1st Q. This result is important because it represents a cost-effective way of training Naval nuclear plant operators.

Documentation: Results are documented and data is collected through the DOE Facility Information Management System. The Facility Condition Index is defined by DOE Order 430.1B.

Related Prior Year Target Performance: FY 2004: **G** FY 2003: **G** FY 2002: **G**

DRAFT

DETAILED PERFORMANCE

— GENERAL GOAL 4: ENERGY SECURITY —

General Goal4: Energy Security

Improve energy security by developing technologies that foster a diverse supply of reliable, affordable, and environmentally sound energy by providing for reliable delivery of energy, guarding against energy emergencies, exploring advanced technologies that make a fundamental improvement in our mix of energy options, and improving energy efficiency.

FY 2006 Annual Performance Targets

G-Green (100%)	Y-Yellow (=80%, <100%)	R-Red (<80%)	U- Undeter- mined
0	0	0	0

3rd Qtr Program Costs (\$ in Millions)

Program Goal:Hydrogen/Fuel Cells Develop hydrogen production, storage, and delivery technologies to the point that they are cost and performance competitive and are being used by the Nation's transportation, energy, and power industries. (EE GG 4.01)

FY 06	FY 05	FY 04	FY 03
G	Y	Y	G

Commentary: Missing

FY 2006 Annual Targets

Complete fabrication and testing of a subale prototype metal hydride storage system; evaluate progress toward the 2007 target of 1.5 Wh/kg (4.5 wt. %), and complete preliminary design of system with potential to meet 2010 targets (2.0 kWh/kg [6 %], 1.5 kWh/L). (EE GG 4.01.1)

Commentary: Missing

Documentation: Quarterly progress reports, correspondence and presentations by United Technologies Research Center, Argonne National Laboratory, TIAX and others such as Center of Excellence participants.

Related Prior Year Target Performance: FY 2005: G FY 2004: G FY 2003: G

Complete installation and 1,000 hours of testing of a refueling station; determine system performance, fuel quality and availability; and demonstrate the ability to produce 5,000 psi hydrogen from natural gas for a projected cost of \$3.00 per gallon of gasoline equivalent, (untaxed at the station, assuming commercial deployment with large equipment production volumes [e.g., 100 units/year]) by 2009. (EE GG 4.01.2)

Commentary: Missing

Documentation: Final report by Air Products, Inc. on 1,000+ hours of operation of the fueling station at Pen State University.

Related Prior Year Target Performance: FY 2005: Y FY 2004: G FY 2003: NA

Program Goal: Hydrogen/Fuel Cell§con't)**G**

Operate fuel cell vehicle fleets to determine if 1,000 hour vehicle fuel cell durability, using fuel cell degradation data, was achieved by industry. **(EE GG 4.01.3)**

Commentary: **Missing**

Documentation: NREL report showing composite (not company-specific) performance (Oct. 2006)

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **G** FY 2003: **NA**

G

DOE-sponsored laboratory scale research will reduce the modeled technology cost to \$110/kW for a hydrogen-fueled 80 kW fuel cell power system. **(EE GG 4.01.4)**

Commentary: **Missing**

Documentation: Quarterly technical progress reports and correspondences from TIAX, 3M, Porvair, De Nora, UTC Fuel Cell, BNL, and LANL.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Maintain total Program Direction costs in relation to total program costs in the range of 8% - 12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs **(EE GG 4.01.5)**

Commentary: **Missing**

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2004: **G** FY 2003: **G** FY 2002: **NA**

G

Complete the development of a laboratory scale distributed natural gas-to-hydrogen production and dispensing system that can produce 5,000 psi hydrogen for \$3.00/gge (projected, untaxed) at the station in 2006. **(EE GG 4.01.6)**

Commentary: **Missing**

Documentation: HFCIT Annual Report: "Low-Cost Hydrogen Distributed Production System Development".

Related Prior Year Target Performance: FY 2004: **G** FY 2003: **R** FY 2002: **NA**

DRAFT

FY 06	FY 05	FY 04	FY 03
G	Y	Y	G

Program Goal: Freedom Car & Vehicle Technologies Develop technologies that enable cars and trucks to become highly efficient, through improved power technologies and cleaner domestic fuels, and to be cost and performance competitive. (EE GG 4.02)

Commentary: **Missing**

FY 2006 Annual Targets

G Reduce parasitic energy loss to 24 percent of total engine output. **(EE GG 4.02.1)**

Commentary: **Missing**

Documentation: FY 2006 Heavy Vehicle Systems Optimization Program Annual Report

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Reduce the projected cost at high volume of a high power, 25 kW, light vehicle, lithium ion battery to \$750 per battery system. **(EE GG 4.02.2)**

Commentary: **Missing**

Documentation: FY 2006 Advanced Technology Development progress review (August 2006).

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Achieve 41 percent brake thermal efficiency for light vehicle combustion engines and 50 percent brake thermal efficiency, while meeting EPA 2010 emission standards (0.2 g/hp-hr NO_x), for heavy vehicle combustion engines. **(EE GG 4.02.3)**

Commentary: **Missing**

Documentation: Presentations at the DOE Advanced Combustion, Emission Control, and Fuels Research Merit Review and at the Distributed Energy and Electricity Reliability (DEER) conference in August 2006.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **Y** FY 2003: **G**

R Complete R&D on technologies, which, if implemented in high volume, could reduce the projected (i.e. modeled) bulk cost of automotive-grade carbon fiber to less than \$3.00/pound. **(EE GG 4.02.4)**

Commentary: **Missing**

Documentation: NA – target not met

Action Plan: The lignin purification project that was initiated with MeadWestvaco is the primary action that will lead to improved carbon fiber properties. In addition to this research project, a revised cost study will be conducted later this year that will re-evaluate the factors of production and process variables for low cost carbon fiber production. Both tasks will be completed in 2007.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Maintain total Program Direction costs in relation to total program costs in the range of 8% - 12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. **(EE GG 4.02.5)**

Commentary: **Missing**

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **G** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03	
G	G	G	G	Program Goal:Solar Energy Improve performance of solar energy systems and reduce development, production, and installation costs to competitive levels. (EE GG 4.03)

Commentary: **Missing**

FY 2006 Annual Targets

G Verify, using standard laboratory measurements, a conversion efficiency of 13.8 percent of U.S. -made, commercial crystalline silicon PV modules. Production cost of such modules is expected to be \$1.90 per Watt. **(EE GG 4.03.1)**

Commentary: **Missing**

Documentation: NREL Technical Report

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Develop thin-film PV modules with an 11.2-percent conversion efficiency that are capable of commercial production in the U.S. **(EE GG 4.03.2)**

Commentary: **Missing**

Documentation: NREL Technical Report.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Conduct advanced research on trough collectors and receivers that will lead to a reduction in the modeled cost of energy from CSP troughs to \$0.12-\$0.14/kWh. **(EE GG 4.03.3)**

Commentary: **Missing**

Documentation: NREL Technical Report.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

G

Maintain total Program Direction costs in relation to total program costs in the range of 8% - 12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. **(EE GG 4.03.4)**

Commentary: **Missing**

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06

FY 05

FY 04

FY 03

Program Goal: Building Technologies Develop cost effective tools, techniques and integrated technologies, systems and designs for buildings that generate and use energy so efficiently that buildings are capable of generating as much energy as they consume. **(EE GG 4.04)**

Y

Y

Y

Y

Commentary: **Missing**

FY 2006 Annual Targets

G

Complete the research for production-ready new residential buildings that are 30% more efficient in 3 climate zones and 40% more efficient in one climate zone than the whole-house Building America benchmark and document the results in Technology Package Research Reports. **(EE GG 4.04.1)**

Commentary: **Missing**

Documentation: Final Technology Package Research Reports

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Complete the development of one design technology package to achieve 30 percent or better energy savings, focusing on a single, high priority building type, such as small commercial retail or office buildings, based on the technical and market assessments completed in 2005. **(EE GG 4.04.2)**

Commentary: **Missing**

Documentation: Copy of final report from Pacific Northwest National Laboratory

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Conduct cost-shared, competitively selected research on technology to achieve = 51 m/W (in a laboratory device) of white light from solid state devices with industry, National Laboratories, and universities. **(EE GG 4.04.3)**

Commentary: **Missing**

Documentation: Research reports from cost-shared research which is competitively selected.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

R

Appliance Standard Rulemakings - Complete analytical and regulatory steps necessary for DOE issuance of 4 rules, consistent with enacted law, to amend appliance standards and test procedures that are economically justified and will result in significant energy savings. Develop for DOE issuance notices of proposed rulemaking (NPRs) regarding energy conservation standards for electric distribution transformers, commercial unitary air conditioners and heat pumps, and residential furnaces and boilers.

(EE GG 4.044)

Commentary: **Missing**

Documentation: Publications in the Federal Register.

Action Plan: After receiving approval by EE-1, the Notice of Proposed Rulemaking for Distribution Transformer Standards will be submitted to S-1 for approval. It is expected that this process will be completed before the end of FY06.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **R**

G

Increase market penetration of appliances (clothes washers, dishwashers, room air conditioners and refrigerators) to 38 to 42% (baseline 30% calendar year 2003), to 2 to 3% for Compact Fluorescent Lamps (baseline 2% calendar year 2003) and 40 to 45% for windows (baseline 40% calendar year 2004).

Estimated energy savings will be 0.030 quads and \$657 million in consumer utility bill savings. **(EE GG 4.045)**

Commentary: **Missing**

Documentation: Contractor report documenting the calculations and data used to achieve the target.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

G

Maintain total Program Direction costs in relation to total program costs in the range of 8% - 12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. **(EE GG 4.046)**

Commentary: **Missing**

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **R** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
Y	Y	G	G

Program Goal Wind Energy By 2012, complete program technology research and development, collaborative efforts, and provide the technical support and outreach needed to overcome barriers – energy cost, energy market rules and infrastructure, and energy sector acceptance – to enable wind energy to compete with conventional fuels throughout the nation in serving and meeting the Nation’s energy needs. (EE GG 4.05)

Commentary: Missing

FY 2006 Annual Targets

Low Wind Speed Technology (LWST): Annual COE Target: 4.2 cents per kWh in onshore Class 4 winds, and 9.3 cents per kWh for offshore systems. Distributed Wind Technology (DWT) COE Target: 11-16 cents per kWh in Class 3 winds. Technology Acceptance: 19 States with over 100 MW wind installed. (EE GG 4.05.1)

Commentary: Missing

Documentation:

http://www.eere.energy.gov/windandhydro/windpoweringamerica/wkshp_2006_state_summit.asp

Related Prior Year Target Performance: FY 2005: Y FY 2004: G FY 2003: G

Maintain total Program Direction costs in relation to total program costs in the range of 8% -12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. (EE GG 4.05.2)

Commentary: Missing

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: G FY 2004: G FY 2003: NA

FY 06	FY 05	FY 04	FY 03
G	G	G	G

Program Goal:Hydropower Conduct the R&D necessary to improve hydropower’s operational and environmental performance so that hydropower generation is increased because of its affordability, abundance, reliability and environmental benefits. (EE GG 4.06)

Commentary: Missing

FY 2006 Annual Targets

Complete final report for operations and maintenance monitoring of large turbine test sites. (EE GG 4.06.1)

Commentary: **Missing**

Documentation: Oak Ridge Laboratory report [ORNL/TM-2006/97]

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **G** FY 2003: **G**

G Maintain total Program Direction costs in relation to total program costs in the range of 8%-12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. **(EE GG 4.06.2)**

Commentary: **Missing**

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
G	G	R	G

Program Goal Geothermal Technologies Improve performance and reduce market entry costs of geothermal energy to competitive levels. In quantitative terms, the goal is to reduce the levelized cost of power generated from conventional geothermal sources from 5 to 8 cents per kWh (kilowatt-hour) in 2000 to 3 to 5 cents per kWh by 2010. (EE GG 4.07)

Commentary: **Missing**

FY 2006 Annual Targets

G Develop an Electronic Repository which makes available via the internet, digitized copies of all Geothermal Technology Program Research Development and Deployment Technical Reports **(EE GG 4.07.1)**

Commentary: **Missing**

Documentation: Memorandum from Lynn Davis of OSTI supports the number of reports digitized. NREL report entitled "Annual Simulation Results for an Air-Cooled Binary Power Cycle employing Flash Cooling enhancement" dated June 2006.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

G Maintain total Program Direction costs in relation to total program costs in the range of 8%-12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. **(EE GG 4.07.2)**

Commentary: **Missing**

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **R** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
G	G	Y	Y

Program Goal: Biomass and Biomass Refinery Systems R&D Develop biorefinery-related technologies to the point that they are cost- and performance-competitive and are used by the Nation's transportation, energy, chemical and power industries to meet their market objectives. (EE GG 4.08)

Commentary: Missing

FY 2006 Annual Targets

G Identify at least one sugar-derived or biomass oil-derived bio-based chemical or material (among those being evaluated) that possesses sufficient potential to enter into the scaled-up developmental phase of R&D from the previous bench-scale phase. (EE GG 4.08.1)

Commentary: Missing

Documentation: PNNL Report.

Related Prior Year Target Performance: FY 2005: G FY 2004: G FY 2003: G

G Complete laboratory and economic assessment of 2 different feed stocks, identifying operating conditions that link pretreatment with enzymes that could be scaled-up and have the potential of achieving the goal of \$0.125 per pound sugar by 2007. (EE GG 4.08.2)

Commentary: Missing

Documentation: NREL Report.

Related Prior Year Target Performance: FY 2005: G FY 2004: NA FY 2003: NA

G Maintain total Program Direction costs in relation to total program costs in the range of 8% -12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. (EE GG 4.08.3)

Commentary: Missing

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: G FY 2004: R FY 2003: NA

G Maintain total Program Direction costs in relation to total program costs in the range of 8% -12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. (EE GG 4.07.2)

FY 06	FY 05	FY 04	FY 03
G	G	G	Y

Program Goal:Weatherization Increase the energy efficiency of dwellings occupied by low-income Americans, thereby reducing their energy costs, while safeguarding their health and safety. (EE GG 4.09)

Commentary: Missing

FY 2006 Annual Targets

G

Weatherize 97,300 homes, with DOE funds, and support the weatherization of approximately 100,000 additional homes with leveraged funds. **(EE GG 4.09.1)**

Commentary: Missing

Documentation: WinSAGA database.

Related Prior Year Target Performance: FY 2005: G FY 2004: G FY 2003: G

R

The Program will complete planning for and initiate implementation of the new comprehensive national evaluation of the Weatherization Assistance Program. The evaluation is a multi-year task that will provide new, accurate baselines for average energy savings, benefit cost ratios, and Btu energy savings per federal dollar expended. **(EE GG 4.09.2)**

Commentary: Missing

Documentation: Revised evaluation plan entitled "National Evaluation of the Weatherization Assistance program; evaluation for program year 2006" (draft dated 3/2006). The revised evaluation plan contains detailed sampling protocols and metrics for assessing the quality of the data acquisition and evaluation of the data.

Related Prior Year Target Performance: FY 2005: G FY 2004: NA FY 2003: NA

G

Maintain total Program Direction costs in relation to total program costs in the range of 8%-12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. **(EE GG 4.09.3)**

Commentary: Missing

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: NA FY 2004: NA FY 2003: NA

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FY 06	FY 05	FY 04	FY 03	Program Goal:State Energy Programs	Strengthen and support the capabilities of the States to promote energy efficiency and to adopt renewable energy technologies. (EE GG 4.10)
G	G	G	NA		
Commentary: Missing					
FY 2006 Annual Targets					
G	Achieve an average annual energy savings of 8-10 trillion source Btus (an estimated \$50-60 million in annual energy cost savings) with DOE funds. Achieve an additional average energy savings of 26-30 trillion source Btus (an estimated \$190-\$200 million in annual energy cost savings) from leveraged funds. (EE GG 4.10.1)				
Commentary: Missing					
Documentation: WinSAGA database					
Related Prior Year Target Performance: FY 2005: G FY 2004: G FY 2003: NA					
G	Maintain total Program Direction costs in relation to total program costs in the range of 8% -12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. (EE GG 4.10.2)				
Commentary: Missing					
Documentation: Program Direction spent as provided by Departmental System STARS.					
Related Prior Year Target Performance: FY 2005: NA FY 2004: NA FY 2003: NA					

FY 06	FY 05	FY 04	FY 03	Program Goal: Federal Energy Management Program (FEMP)/ Departmental Energy Management Program (DEMP)
G	Y	R	G	Provide the efficiency and renewable energy-related technical assistance Federal agencies need to lead the Nation by example through the government's own actions, expressly obtaining Federal renewable energy use of by 2.5 percent by 2005 and reducing energy intensity in Federal buildings by 35 percent by 2010 (using 1985 as a baseline) (EE GG 4.13)
<i>Commentary:</i> Missing				
FY 2006 Annual Targets				
G	Will achieve between \$80 and \$120 million in private sector investment through Super ESPCs and/or UESCs which we expect to result in about a 0.2 percent annual reduction in energy intensity. These projects are cost-effective resulting in a positive net present value gain for the tax payer. (EE GG 4.13.1)			

Commentary: **Missing**

Documentation: Copy of the awarded contract between the Energy Service Company (ESCO) and the agency receiving the award.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **R** FY 2003: **G**

G

Provide technical and design assistance for 27 Federal projects (e.g., energy efficiency, renewable energy, Operations and Maintenance, Distributed Energy Resources, Combined Heat and Power, Assessment of Load and Energy Reduction Techniques (ALERTS) and water conservation projects) which are expected to result in energy savings of about 60 billion Btus. **(EE GG 4.13.2)**

Commentary: **Missing**

Documentation: The Department's Corporate Planning System (CPS) which includes detailed information for each project selected.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Provide technical and design assistance for 27 Federal projects (e.g., energy efficiency, renewable energy) Complete the selection for funding of 3 energy retrofit projects that will provide the required dollar savings to achieve a 20 percent return on the investment of the DEMP funding. These projects will save over 12 billion Btus per year. **(EE GG 4.13.3)**

Commentary: **Missing**

Documentation: The Department's Corporate Planning System (CPS) which includes detailed information for each project selected.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

G

Maintain total Program Direction costs in relation to total program costs in the range of 8% - 12% to demonstrate efficient and effective EERE-wide business and technical support to mission direct programs. **(EE GG 4.13.4)**

Commentary: **Missing**

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
G	G	G	G

Program Goal Industrial Technology: Partner with our most energy-intensive industries in strategic planning and energy-specific Research, Development & Demonstration (RD&D) to develop the technologies needed to use energy efficiently in their industrial processes and cost-effectively generate much of the energy they consume. The result of these activities will save feedstock and process energy, create domestic supply, improve the environmental performance of industry, and help America's economic competitiveness. (EE GG 4.60)

Commentary: Missing

FY 2006 Annual Targets

G

Commercialize 3 new technologies in partnership with the most energy-intensive industries. (EE GG 4.60.1)

Commentary: Missing

Documentation: PNNL monthly reports and annual report.

Related Prior Year Target Performance: FY 2005: G FY 2004: G FY 2003: G

G

An additional 200 (leading to a cumulative 8,600) energy intensive U.S. plants will apply EERE technologies and services contributing to the goal of a 20% reduction in energy intensity from 2002 levels by 2020. (EE GG 4.60.2)

Commentary: Missing

Documentation: Quarterly Lawrence Berkeley National Laboratory report.

Related Prior Year Target Performance: FY 2005: G FY 2004: G FY 2003: G

G

Contribute proportionately to EERE's corporate goal of reducing corporate and program adjusted uncosted obligated balances to a range of 20-25 percent by reducing program annual adjusted uncosteds by 10 percent in 2005 relative to the program FY 2004 end of year adjusted uncosted baseline (\$40,741K) until the target range is met. (EE GG 4.60.3)

Commentary: Missing

Documentation: Program Direction spent as provided by Departmental System STARS.

Related Prior Year Target Performance: FY 2005: NA FY 2004: NA FY 2003: NA

Program Goal: New Nuclear Generation Technologies

Develop new nuclear generation technologies that foster the diversity of the domestic energy supply through public-private partnerships that are aimed in the near-term (2014) at the deployment of advanced, proliferation-resistant light water reactor and fuel cycle technologies and in the longer-term (2025) at the development and deployment of next-generation advanced reactor and fuel cycles. (NE GG 4.14)

FY 06	FY 05	FY 04	FY 03
G	G	Y	Y

Commentary: The successful achievement of the associated annual targets represents significant progress toward the near term and long term aspects of this program goal. The Office of Nuclear Energy will continue to build upon these R&D activities in FY 2007 and beyond to encourage the deployment of nuclear energy.

FY 2006 Annual Targets

- G** Complete GenIV research and development activities to inform a design selection for the next generation nuclear power plant by FY 2011. **(NE GG 4.14.1a)**

Commentary: In FY 2006, the program focused on R&D activities associated with materials and fuels testing necessary for determining the design of the next generation nuclear power plant (NGNP). Successful achievement of the target moves the program closer to selecting an NGNP design by FY 2011, which is necessary to the development and deployment of next-generation advanced reactors by 2025.

Documentation: A copy of the report is on file in the Generation IV Nuclear Power Systems program office at Department of Energy Headquarters, Germantown, MD.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **Y**

- G** Complete NHI research and development activities that support the commercialization decision in 2015, as required in the Department's Hydrogen Posture Plan (a presidential initiative). **(NE GG 4.14.1b)**

Commentary: In FY 2006, the program focused on R&D activities associated with thermochemical processes designed to demonstrate the viability of using heat and/or electricity from next generation nuclear energy systems to produce hydrogen at a cost competitive with other alternative fuels. Successful achievement of the target directly contributes to the goals of the Department's Hydrogen Posture Plan, and contributes to the design of the next generation nuclear power plant.

Documentation: A copy of the report is on file in the Nuclear Hydrogen Initiative program office at Department of Energy Headquarters, Germantown, MD.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

- G** Complete AFCI research and development activities that allow the AFCI program to support the Secretary's **(NE GG 4.14.1c)**

Commentary: In FY 2006, the program focused on R&D activities associated with advanced separations and fuels testing and initiating conceptual design work on an advanced fuel cycle facility. Successful achievement of the target increases our understanding of the nuclear fuel cycle, and will significantly contribute to the Department's FY 2008 decision on whether to build a second geologic repository for high level nuclear waste. These activities also contribute to the Global Nuclear Energy Partnership (GNEP), which seeks to enable expanded use of economical, carbon-free nuclear energy using a nuclear fuel cycle that enhances energy security while promoting non-proliferation.

Documentation: Copies of both reports are on file in the Advanced Fuel Cycle Initiative program office at Department of Energy Headquarters, Germantown, MD.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Complete engineering and licensing demonstration activities necessary to implement the NP 2010 program in accordance with the principles of project management, to help ensure that program performance goals are achieved on schedule and within budget.

(NE GG 4.14.2)

Commentary: In FY 2006, the program focused on activities associated with achieving NRC certification of two advanced nuclear reactor designs, and the review and certification of industry baselines for combined Construction and Operating Licenses (COLs) for new nuclear power plants. Achievement of the annual target moves the program closer toward enabling an industry decision to deploy new nuclear power plants by 2010.

Documentation: A copy of the baseline review report is on file in the Nuclear Power 2010 program office at Department of Energy Headquarters, Germantown, MD.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **Y**

G

Establish a baseline ratio of R&D program direction to total R&D program funding. **(NE GG 4.14.3)**

Commentary: Achievement of the annual target establishes the baseline for FY 2007 and beyond for improving R&D program management efficiency. Further, the creation of a common approach for calculating total administrative overhead costs in applied R&D programs within the Department will allow some measure of comparability among program offices.

Documentation: Measure Criteria is recorded in DOC#158372; performance is captured in Approved Funding Plans for April, May and June, and in Monthly Performance and Finance Reports.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
G	G	G	Y

Program Goal: National Nuclear Infrastructure Maintain, enhance, and safeguard the national nuclear infrastructure to meet the Nation's energy, environmental, medical research, space exploration, and national security needs. (NE GG 4.17)

Commentary: The successful achievement of three of the four performance measures associated with this program goal indicate the strength of the national nuclear infrastructure. Work continues to correct the cost and schedule variance issues associated with the implementation of a new work control and accounting system for the Materials and Fuels Complex. However, this performance shortfall did not having a significant impact on the office's ability maintain an effective infrastructure to meet R&D needs.

FY 2006 Annual Targets

- G** Maintain operability of Radiological Facilities Management and Idaho Facilities Management-funded facilities to enable accomplishment of Nuclear Energy, other DOE and Work-for-Others milestones by achieving a Facility Operability Index of 0.9. **(NE GG 4.17.1)**

Commentary: This target focuses on essential infrastructure and associated activities that represent key indicators critical to maintaining an effective infrastructure. Successful achievement of this annual target represents an assurance that the Department's unique nuclear infrastructure, required for advanced nuclear energy technology research and development, is available to support national priorities.

Documentation: End of second quarter reports to the IFM Headquarters Team Leader from Field IFM Program Managers on status of achieving a 0.9 or better Operability Index through the third quarter. Operability Index criteria are set forth in Appendix E of the IFM Annual Operating Plan. The Isotope Program's summary documentation is included in DOC# 154583. The Space and Defense Program's summary documentation is included in DOC# 158403.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **Y**

- G** Install all physical protective system upgrades outlined in the approved May 2003 Design Basis Threat (DBT) Implementation Program Management Plan that remain consistent with the requirements of the 2004 DBT. **(NE GG 4.17.2)**

Commentary: In FY 2006, the program focused on safeguards and security activities at Idaho National Laboratory, including conceptual design on security upgrades for the Materials and Fuels Complex (MFC). Successful achievement of the target helps ensure that the Department's critical nuclear infrastructure, required for advanced nuclear energy technology research and development, is available to support national priorities.

Documentation: Conceptual Design Report and associated documentation are on file in the Safeguards and Security program office at Department of Energy Headquarters, Germantown, MD.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

- G** Complete activities to enhance the nation's nuclear education infrastructure by providing financial support to universities for facility and reactor modernization, and to students to enable the pursuit of careers in nuclear energy-related fields; through these activities, DOE is demonstrating its commitment to the development of nuclear technology for the Nation. **(NE GG 4.17.3)**

Commentary: In FY 2006, the program focused on activities associated with the solicitation, peer review and awards for Office of Nuclear Energy grant programs. Funds were issued to individuals and institutions to support nuclear education activities. Successful achievement of the target significantly contributes to enhancing the nation's nuclear education infrastructure to support the future development of nuclear technology.

Documentation: Documents associated with the peer reviews and award notifications, as well as the study report on student enrollment, employment and career choices, are on file in the University Programs office at Department of Energy Headquarters, Germantown, MD.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Consistent with safe operations, achieve cumulative variance of less than 10 percent from cost and schedule baselines for the Reactor Technology Complex and the Materials and Fuels Complex.

(NE GG4.17.4)

Commentary: Due to unanticipated problems associated with the implementation of new work control and accounting procedures by the contractor for the Idaho National Laboratory, the cumulative variance from costs and schedule baselines for the Materials and Fuel Complex were greater than 10 percent at the end of FY 2006.

Documentation: Idaho Facilities Management Infrastructure Program Monthly Reports held on file at the IFM Program Office in Germantown, MD.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **Y**

Program Goal: Zero Emissions Coal-Based Electricity & Hydrogen Production

Create public/private partnerships to provide technology to ensure continued electricity generation and hydrogen production from the extensive U.S. fossil fuel resource (especially coal), including control technologies to permit reasonable-cost compliance with emerging regulations, and ultimately, by 2015, near zero emission plants (including carbon) that are fuel-flexible, and capable of multi-product output and efficiencies over 60 percent with coal and 75 percent with natural gas. (FE GG 4.55)

Commentary: **Missing**

FY 2006 Annual Targets

R Conduct initial pilot scale slipstream field testing of at least one technology capable of 90 % mercury removal. **(FE GG 4.55.1)**

Commentary: **Missing**

Documentation: **Missing**

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Begin construction and testing of advanced gas separation technologies. In FY 2006, the Gasification Technologies program will move gas separation, including ceramic membrane, hydrogen separation, CO₂ hydrate formation and ceramic membrane air separation, closer to commercialization, eventually leading

to capital cost reductions of \$60-\$80 per kW from the baseline of \$1200/kW for IGCC systems and efficiency improvements of >1 efficiency points. **(FE GG 4.55.2)**

Commentary: **Missing**

Documentation: Documented through e-mail from recipient.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Initiate a prototype combustor module test for large frame engines of low NO_x combustion technology (trapped vortex, catalytic, lean premix, or modified diffusion flame) using simulated coal based synthesis gas to demonstrate progress towards a 3 ppm NO_x emissions goal. **(FE GG 4.55.3)**

Commentary: **Missing**

Documentation: Both the burnout region CFD and the transition mixing zone CFD are documented in internal presentations.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Perform pilot-scale testing and also laboratory testing of different CO₂ capture technologies to lead to significant improvement in cost and performance, and initiate field sequestration activities within the Regional Partnerships leading to future sequestration tests. **(FE GG 4.55.4)**

Commentary: Two membrane systems and two sorbent systems were evaluated in laboratory testing in order to determine their applicability to pilot scale testing on 6/30/06. The data shown produced from the laboratory scale testing showed that the technology was feasible and the next step in testing will proceed to evaluation of scale-up issues and subsequent pilot-scale testing.

Documentation: The laboratory scale evaluation of polymer membranes developed by Los Alamos National Laboratory was completed and documented in the annual report available in October 2006. The completed laboratory testing will be documented in the project final report due December 2006.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

G One or more SECA Industry Teams (ITs) complete Phase I prototype validation test and evaluation against SECA Phase I minimum technical requirements and cost goals. **(FE GG 4.55.5)**

Commentary: **Missing**

Documentation: **Missing**

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Improve cell performance and reliability through reduction of area specific resistance (ASR) and interconnect reliability improvement to aid SECA ITs in achieving technical requirements and cost goals. **(FE GG 4.55.6)**

Commentary: **Missing**

Documentation: **Missing**

DRAFT

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Develop industry standards for the design and operation of a commercial-scale advanced hydrogen separation system, and complete screening tests of a pre-engineering scale prototype unit to validate design parameters. **(FE GG 4.55.7)**

Commentary: **Missing**

Documentation: **Missing**

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

G

Make go/no go decisions regarding award of cooperative agreements for all projects selected under Round 2 CCPI. **(FE GG 4.55.8)**

Commentary: **Missing**

Documentation: **Missing**

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06

FY 05

FY 04

FY 03

Program Goal: Natural Gas Technologies The Natural Gas Technologies' goal is to provide technology and policy options capable of ensuring abundant, reliable, and environmentally sound gas supplies. (FE GG 4.56)

G

G

G

G

Commentary: The completion of prototype near term products and field tests for the down hole seismic receiver array, a novel sparker-coupler seismic source and assembly of Prototype HPHT Measurement-While-Drilling (MWD) Tool will help industry to reduce costs and increase efficiency in gas exploration, production and storage.

FY 2006 Annual Targets

G

Complete four of the prototype near-term products or field tests from the following critical technology areas: advanced drilling, advanced diagnostics/imaging, stripper-well enhancement, and gas storage. Conduct exploratory and characterization studies that confirm and/or advance development of methane hydrate exploration technologies or help assess the viability of future production scenarios. **(FE GG 4.56.1)**

Commentary: **Missing**

Documentation: **Missing**

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

FY 06	FY 05	FY 04	FY 03
G	G	G	Y

Program Goal Oil Technolog The goal of the Oil Technology program is to enhance U.S. energy security by managing and funding oil exploration and production (E&P) research and policy which results in development of domestic oil resources in an environmentally sound and safe manner. (FE GG 4.57)

Commentary: These field applications support the goal of increasing economic recoverable resource base. The success of the horizontalwells in Wilmington field, the 3D survey work and the sliding sleeve technology will contribute toward increasing the resource base.

FY 2006 Annual Targets

G Develop technologies through up to 4 projects. **(FE GG 4.57.1)**

Commentary: Reservoir Characterization Techniques resulted in redevelopment of the Tar II-A and Tar V projects by drilling and converting idle wells to more effectively drain remaining oil reserves. Reduced water production has also occurred. No steam injection is currently available so testing heavy oil cold production technology to maximize recovery was conducted.

Documentation: See ProMis for project BC14939/Milestones tab/Project Milestones/ Joule Milestone FY06 Q3/Documentation

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **Y**

FY 06	FY 05	FY 04	FY 03
G	G	G	Y

Program Goal:Strategic Petroleum ReservesMaintain operational readiness of the Strategic Petroleum Reserve to drawdown at a sustained rate of 4.4 million barrels per day for 90 days, within 15 days notice by the President. (FE GG 4.58)

Commentary: **Missing**

FY 2006 Annual Targets

G Achieve maximum sustained (90 day) drawdown rate of 4.4 MMB **(FE GG 4.58.1)**

Commentary: The program met its target of 4.4 million barrels per day as evidenced in the SPR Drawdown Readiness and Capability (RECAP) Report and the Online Readiness Computerized Assessment (ORCA) System.

Documentation: RECAP and ORCA systems capture the supporting documentation.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **Y**

G Achieve operating cost per barrel of capacity of \$0.201 **(FE GG 4.58.2)**

Commentary: The program continued cost savings through the fourth quarter, resulting in cumulative costs of approximately \$144,509k (versus the target of \$148,467k). The annual operating cost per barrel at year-end was \$0.190.

Documentation: Cost data is supported by reports from the STARS/IDW system.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
G	Y	Y	G

Program Goal: Electricity Delivery and Energy Reliability Lead the national effort to modernize and expand the Nation's electricity delivery system to ensure a more reliable and robust electricity supply, as well as economic and national security. (OE GG 4.12)

Commentary: Missing

FY 2006 Annual Targets

G Operate a first-of-a-kind superconductive power line on the electric grid for 240 hours. (OE GG 4.12.1)

Commentary: Missing

Documentation: High Temperature Superconducting Underground Cable Annual Report.

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **NA** FY 2003: **NA**

G Facilitate the installation and operation of 30 additional measurement units and 2 additional archiving and analysis locations in a real-time measurement network, for a cumulative total of 80 measuring units and 8 archiving and analysis locations. (OE GG 4.12.2)

Commentary: Missing

Documentation: Progress Report: Contributions by the Pacific Northwest National Laboratory (PNNL) to the U.S. Department of Energy (DOE) Transmission Reliability Program as part of the Consortium for Electric Reliability Technology Solutions (CERTS)."

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

G Commission three pioneering energy storage systems in collaboration with the CEC and NYSERDA and produce preliminary reports using collected technical and economic data. (OE GG 4.12.3)

Commentary: Commissioning of the Beacon flywheel energy storage system was completed. Installation of the 100 kW, 15 min prototype device, a project of the NYSERDA / DOE Joint Storage Initiative, was finalized June 30, 2006. The system is installed at a commercial site in Amsterdam, NY. Responding directly to the grid, the system performs frequency regulation and provides power quality to the facility. Two preliminary reports have been issued by Enernex on the Gaia PowerTower energy storage system (BESS) using the collected technical and economic data for analysis. The monitoring system installed by EPRI-Solutions has initiated testing and data collection for the Beacon system at DUIT. The data collection system, installed by Enernex, is initiating monitoring of the Beacon frequency regulation system in NY State.

Documentation:

e-mail by NYSERDA Project Director Joe Sayers, 6/30/2006 e-mail by Sandia Project Director Georgianne Peek, 6/30/2006

Report # EX9648-040606, Monitoring Report: Delaware County Electric Cooperative Energy Storage Demonstration Project, July 2005 - Mar 2006

Report # EX9648-061506, Quarterly Report: Delaware County Electric Cooperative Energy Storage Demonstration Project, Mar 2006 - June 2006

FY06 Commissioning and Initial Technical and Economic Data Collection on Three Pioneering Energy Storage System Projects in Collaboration with the CEC and NYSERDA.

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **G** FY 2003: **NA**

G Maintain total Research and Development Program Direction costs in relation to total Research and Development costs at less than 12%. **(OE GG4.12.4)**

Commentary: Senior management and the Resource Management Division manage support services efforts in a manner which both controls and reduces costs to ensure that overhead is below 12% for the R&D Division. Among OE's management approaches are: 1) using corporate IT and financial reporting systems where possible to avoid duplication of effort, including development costs, and to improve alignment with the Department's IT and financial related mission and goals, particularly budget and performance integration; 2) competing support services contracts where cost savings are possible, and choosing the most cost effective competitor; and, 3) employing effective IT systems previously developed by larger DOE program offices in order to minimize start up and development costs.

Documentation: OE's Official Spreadsheet of R&D Program Direction vs. R&D Program Funding.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03	Program Goal:Southeastern Power Administration
G	G	G	G	Ensure Federal hydropower is marketed and delivered while passing the North American Electric Reliability Council's Control Compliance Ratings, meeting planned repayment targets, and achieving a recordable accident frequency rate at or below our safety performance standard. (PMA GG 4.51)

Commentary: **Missing**

FY 2006 Annual Targets

G Meet NERC Control Performance Standards (CPS) of CPS1>100 and CPS2>90. CPS1: minute by minute measures a generating system's ability to match supply to changing demand requirements and support desired system frequency (about 60 cycles per second); CPS2: measures systems ability to limit the magnitude of generation and demand imbalances. **(PMAGG 4.51.1)**

Commentary: **Missing**

Documentation: CPS 1 and CPS 2 and Reported to SERC Web Portal on Form P1T1

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

Repay \$40.7 million annually under average water conditions to meet required payments as they come due and assure that all aged investments will be replaced on a timely basis now and in the future.

R

(PMA GG 4.51.2)

Commentary: The southeast is experiencing the 8th worst period of drought in the past 100 years. Over the third quarter of FY 06 cyclical drought conditions in the southeast resulted in below average power generation and a subsequent decrease in repayment. If drought conditions persist through the 4th quarter repayment at year end will be less than 52 percent of planned.

Documentation: SERC/NERC Compliance; Reported to SERC Web Portal; Disturbance Control: Form P1T2; Compliance Issues: Form P2T1; Operator Training: Form P8T2

Action Plan: Greater than average rainfall over the previous two fiscal years enabled Southeastern's repayment to be significantly greater than planned. The cyclical nature of rainfall should be considered when evaluating off-year results that are less than expected.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Provide \$635 million in annual economic benefits to the region under average water conditions. **(PMA GG 4.51.3)**

Commentary: Continuing into the third quarter of FY 06 cyclical drought conditions in the southeast resulted in below average power generation and lower than expected economic benefits. Economic benefits are 68 % of average for the third quarter and cumulative benefits at the end of the 3rd quarter are 70 % of average.

Documentation: Repayment; Power Repayment Studies; Annual Report & Audited Financial

Action plan: Greater than average rainfall over the previous two fiscal years enabled economic benefits associated with the sale of Federal hydroelectric power to be significantly greater than planned. The cyclical nature of rainfall should be considered when evaluating off-year results that are less than expected.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
G	G	G	Y

Program Goal:Southwestern Power AdministrationMarket and Deliver Federal Power: Provide the benefits of Federal power to customers by selling and reliably delivering power from Federal multipurpose hydroelectric dams at the lowest cost-based rates possible that produce revenues sufficient to repay all power costs to the American taxpayers. (PMA GG 4.52)

Commentary: Missing

FY 2006 Annual Targets

G

Meet industry averages (CPS1: 162.3 and CPS2: 96.7) and at a minimum, meet NERC Control Performance Standards (CPS) of CPS1>100 and CPS2>90. CPS1: minute by minute measures a generating system's ability to match supply to changing demand requirements and support desired system frequency (about 60 cycles per second); CPS2: measures systems ability to limit the magnitude of generation and demand imbalances. **(PMA GG 4.52.1)**

Commentary: Missing

Documentation: Data can be found at <http://www.nerc.com/~filez/cps.html>.

Related Prior Year Target Performance: FY 2005: G FY 2004: G FY 2003: G

G

Repay the Federal Investment within the required repayment period. **(PMA GG 4.52.2)**

Commentary: Missing

Documentation: Missing

Related Prior Year Target Performance: FY 2005: G FY 2004: G FY 2003: Y

G

Provide power at the lowest possible cost by keeping average operation and maintenance cost per kilowatt-hour below the National average for hydropower. **(PMA GG 4.52.3)**

Commentary: cost per kilowatt-hour statistics are as follows:

Southwestern: \$0.0108

National Industry Average: \$0.0136

Documentation: Cost per kilowatt-hour - Annual Reports, Energy Information Administration Form 1 Reports, CBO Budget and Economic Outlook Forecast.

Related Prior Year Target Performance: FY 2005: G FY 2004: NA FY 2003: NA

Y

Provide \$462 million in economic benefits to the region from the sale of hydroelectric power (under average water conditions). **(PMA GG 4.52.4)**

Commentary: **Missing**

Documentation: Economic benefits - Energy dollar values were obtained from U.S. Army Corps of Engineers' (Corps) Greers Ferry Lake Reallocation Study dated September 1997. Capacity dollar values were developed by the Corps' Hydropower Analysis Center using Federal Energy Regulatory Commission procedures. Actual generation was obtained from the Corps power plant reports. Southwestern has 2,247.8 megawatts of capacity for support of the 2052.6 megawatts of marketed capacity with 5,570.0 gigawatt-hours of energy produced from average water conditions.

Action Plan: Southwestern continues to experience severe drought conditions that hamper its ability to generate sufficient energy to fulfill its contractual obligations and provide expected economic benefits. In order to accomplish this goal with a "GREEN" rating, the system will have to generate approximately 1,800 GWh during the fourth quarter, or 1.5 times the past 19-year average.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

G

Operate the transmission system so there are no more than 3 preventable outages annually. **(PMA GG 4.52.5)**

Commentary: **Missing**

Documentation: Outages - Southwestern's Point of Delivery Incidents Log.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06

FY 05

FY 04

FY 03

Program Goal: Western Power Administration Ensure Federal hydropower is marketed and delivered while passing the North American Electric Reliability Council's Control Compliance Ratings. (PMA GG 4.53)

G

G

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Commentary: **Missing**

FY 2006 Annual Targets

G

Attain acceptable North American Electric Reliability Council (NERC) ratings for the following Control Performance Standards (CPS) measuring the balance between power generation and load: 1) CPS1 which measures generation/load balance and support system frequency on 1-minute intervals (rating>100); and 2) CPS2 which limits any imbalance magnitude to acceptable levels (rating>90). **(PMA GG 4.53.1)**

Commentary: Balanced supply and demand ensures safe and stable electric power grid operation. All Western control areas "passed" for all months, exceeding the minimum.

Documentation: Regional monthly compliance results are published on the NERC website (<http://www.nerc.com/~filez/cpc.html>). Data recorded and submitted to NERC on NERC Form CPS-1, NERC Control Performance Standard Survey All Interconnections, Form CPS-2, NERC Control Performance Standard Survey Regional Summary, and NERC CPS Calculation Spreadsheet (for calculating CPS compliance). The data is captured by a computer routine in each of Western's control

center's Energy Management System (EMS) computer.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

FY 06	FY 05	FY 04	FY 03	Program Goal	Bonneville Power Administration
G	G	G	G	Ensure Federal hydropower is marketed and delivered while passing the North American Electric Reliability Council's Control Compliance Ratings, meeting planned repayment targets, and achieving a recordable accident frequency rate at or below our safety performance standard. (PMA GG 4.54)	

Commentary: **Missing**

FY 2006 Annual Targets

Attain average NERC compliance ratings for the following NERC Control Performance Standards (CPS) measuring the balance between power generation and load, including support for system frequency: (1) **G** CPS1, which measures generation/load balance on one-minute intervals (rating greater than or equal to 100); and (2) CPS2, which limits any imbalance magnitude to acceptable levels (rating greater than or equal to 90). **(PMA GG 4.54.1)**

Commentary: Both control performance measures were in the "pass" zone. Meeting this target demonstrates Bonneville's ongoing commitment to reliably deliver power to the region.

Documentation: Fourth Quarter FY 2006 Findings Memo

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Meet planned annual repayment of principal on Federal power investments. **(PMA GG 4.54.2)**

Commentary: Current operational and financial forecasting indicates Bonneville is on track to meet at least 100% of its planned annual repayment by fiscal year end. Meeting this annual performance target demonstrates Bonneville's commitment to meeting its obligations to U.S. taxpayers.

Documentation: Fourth Quarter FY 2006 Findings Memo

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Achieve a recordable accident frequency rate (RAFR) of no more than 3.3 recordable injuries per 200,000 hours worked or the Bureau of Labor Statistics' industry rate, whichever is lower. **(PMA GG 4.54.3)**

Commentary: Bonneville achieved a recordable accident frequency rate of **X.X**, which is within the intended target range of less than or equal to 3.3. Bonneville continues to strive for reduced injuries through a proactive safety program.

Documentation: Fourth Quarter FY 2006 Findings Memo

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G Achieve 97% HLHA through efficient performance of Federal hydro-system processes and assets, including joint efforts of BPA, Army Corps of Engineers, and Bureau of Reclamation. HLHA is actual machine capacity available during heavy-load hours (0700-2200 Monday-Saturday), divided by planned available capacity during heavy-load hours. **(PMA GG 4.54.4)**

Commentary: The HLHA measure is designed to improve the alignment of generation availability with water supply and market demand. The Federal Columbia River Power System (FCRPS) hydropower partners (Bonneville, Bureau of Reclamation, and Corps of Engineers) met this operational goal for the hydropower system with fiscal year-to-date performance of **xx.x%**.

Documentation: Fourth Quarter FY 2006 Findings Memo

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

FY 06	FY 05	FY 04	FY 03
G	G	G	G

Program Goal: Energy Information Administration EIA's Information program is relevant, reliable and consistent with changing industry structures, and EIA's products are accurate and timely. (EIA GG 4.61)

Commentary: **Missing**

FY 2006 Annual Targets

G Selected products (data publications and forecasts) will meet release schedules ranging from weekly to multi-year. **(EIA GG 4.61.1)**

Commentary: The 130 information products that we were tracking in the latest quarter, 125 were released on schedule. This is 94 % for year-to-date, which is above our goal of 90 % for the year. Many energy markets rely on EIA data being available on schedule, and by meeting these needs, EIA helps to promote efficient energy markets, and, to a lesser extent, sound policy making and public understanding. Together, these help to promote a diverse supply and delivery of reliable, affordable, and environmentally sound energy, both now and in the future.

Documentation: EIA selected which products to track, established scheduled release dates, and is tracking the actual release dates against this schedule. The products selected include both data and forecasts, and are from all major EIA offices. For this year, we are tracking 8 weekly, 6 monthly, 3 quarterly, and 23 annual or multi-year products.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

G At least one customer Survey will be conducted during the year to measure customer satisfaction with the quality of EIA information. **(EIA GG 4.61.2)**

Commentary: Yes, completed a customer satisfaction survey during the fiscal year. EIA believes that the ratings and comments from our customers provide us with important insights into how our information is used, who the customers are, what they are looking for, and areas for future improvements. EIA also obtains feedback in other ways, including a recently completed external study team review of

our major activities. All of this feedback helps EIA to continue to provide high-quality and relevant information, which assists in the management of energy in the U.S. both now and in the future.

Documentation: The survey.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

DETAILED PERFORMANCE

— GENERAL GOAL 5: SCIENCE —

General Goal 5:

World-Class Scientific Research Capacity

Provide world-class scientific research capacity needed to: ensure the success of Department missions in national and energy security; advance the frontiers of knowledge in physical sciences and areas of biological, medical, environmental, and computational sciences; or provide world-class research facilities for the Nation's science enterprise.

FY 2005 Annual Performance Targets

G-Green (100%)	Y-Yellow (=80%, <100%)	R-Red (<80%)	U- Undeter- mined

3rd Qtr Program Costs (\$ in Millions): \$

Program Goal: High Energy Physics

Understand the unification of fundamental particles and forces and the mysterious forms of unseen energy and matter that dominate the universe; search for possible new dimensions of space; and investigate the nature of time itself. (SC GG 5.19)

FY 06	FY 05	FY 04	FY 03
	G	G	Y

Commentary: Missing

FY 2006 Annual Targets

G Deliver within 20% of baseline estimate a total integrated amount of data (in inverse picobarns) to the CDF and DZero detectors at the Tevatron. The FY06 baseline is 675, so within 20% of baseline is 540 pb-1. (SC GG 5.19.1)

Commentary: Milestone met. Data delivered through Q3: 318 pb-1. There was a long shutdown in Q3 for accelerator maintenance and to install the Dzero detector upgrade.

Documentation: <http://www-bdnew.fnal.gov/operations/lum/supertable.html>

This page, "Quarterly Performance Numbers", lists the number of inverse picobarns for each quarter of 2006.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

R Deliver within 20% of baseline estimate a total integrated amount of data (in inverse femtobarns) delivered to the BABAR detector at the Stanford Linear Accelerator (SLAC) B-factory. The FY06 baseline is 100 fb-1, so within 20% of baseline is 80 fb-1 (SC GG 5.19.2)

Commentary: Milestone not met (just barely). 71.8 fb-1. SLAC failed to achieve its overall Q3 2006 luminosity performance goal due to recovery from repair of vacuum leaks identified in Q2. However the incremental Q3 goal (30 fb-1 in Q3 alone) was exceeded.

Action Plan: Repairs have been completed and typical accelerator performance now exceeds previous record levels. The annual target can be achieved, if high intensity running is maintained through Q4.

Documentation: http://www.slac.stanford.edu/grp/ad/PEP-II_Run_Time_Statistics/PEP%20FY2003-5%20totals%20for%20DOE.pdf

This page, "SLAC-PEP-II Run Statistics," for the BABAR Detector and PEP-II B-factory, records its "data delivery" (in fb-1) and "unscheduled downtime"

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **G** FY 2003: **R**

G

Achieve less than 10% for both the cost-weighted mean percentage variance from established cost and schedule baselines for major construction, upgrade, or equipment procurement projects (SC GG 5.19.3)

Commentary: Milestone met. Cost and schedule variance for monitored projects are on track to be within 10% of the baseline for the entire year.

Documentation: Derived from Quarterly Project Reports for the following projects: U.S. CMS; - U.S. ATLAS. Cost and schedule variance calculated by Earned Value for each project is averaged, weighted by the Total Project Cost for that project. The supporting documentation resides in the files of the HEP Office (SC-25), and a web site is under development.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

Program Goal: High Energy Physics (con't)**R**

Achieve greater than 80% average operation time of the scientific user facilities Fermilab Tevatron and the Stanford Linear Accelerator (SLAC B-factory) as a percentage of the total scheduled annual operating time (SC GG 5.19.4)

Commentary: Milestone met. Tevatron Unscheduled downtime: 8%. SLAC unscheduled downtime 18%. Weighted average unscheduled downtime 11%. Average Operations time 89%.

Action Plan: Red value due to missed milestone in quarters 1&2.

Documentation: Derived from letters from Lab Directors or designee. Fermi data are reported at same website as for SC GG 5.19.1.

(<http://www-bdnew.fnal.gov/operations/lum/supertable.html>); SLAC data at same website as for SC 5.19.2

(http://www.slac.stanford.edu/grp/ad/PEP/Run_Time_Statistics/PEP%20FY2003-5%20totals%20for%20DOE.pdf.)

The scientific user facilities and scheduled hours:

- the Fermilab Tevatron, 4320

- the Stanford Linear Accelerator (SLAC) B-factory, 5200, for a total of 9520 hours (7616 hours is 80%).

Unscheduled downtime reported by each facility is averaged, weighted by the Facility Operations cost. Facility Operations costs are defined in the Facilities Summary section of the HEP FY06 budget submission.

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **G** FY 2003: **G**

G

Measure within 20% of the total integrated amount of data (in protons target) delivered to the MINOS detector using the NuMI facility. The FY06 baseline is 1×10^{20} , so within 20% of baseline is 0.8×10^{20} . (SC GG 5.19.5)

Commentary: Milestone met. Data delivered through Q3: 0.81×10^{20} protons-on-target, met annual goal.

Documentation: <http://www-bdnew.fnal.gov/operations/lum/supertable.html>

This page, "Quarterly Performance Numbers," lists the number of protons-on-target for each quarter of 2006.

Related Prior Year Target Performance: FY 2005: **NA** FY 2004: **NA** FY 2003: **NA**

Program Goal: Nuclear Physics Understand the evolution and structure of nuclear matter, from the smallest building blocks, quarks and gluons; to the elements in the universe created by stars; to unique isotopes created in the laboratory that exist at the limits of stability, possessing radically different properties from known matter. (SC GG 5.20)

FY 06

FY 05

FY 04

FY 03

G**G****G**

Commentary: **Missing**

FY 2005 Annual Targets**G**

Record at least 80% of the weighted average number of billions of events recorded at the Argonne Tandem Linac Accelerator System and Holifield Radioactive Ion Beam facilities, respectively. The FY06 Baseline weighted average is 9.5 (17.5, 1.4); so at least 80% of the weighted average is 7.5 (1.1). (SC GG 5.20.1)

Commentary: Milestone met and Annual Target exceeded 2nd Quarter. The weighted average number of 14.2 billion events at ATLAS and HRIBF facilities exceeds the goal for the Quarterly milestone as well as exceeding the annual target. Achieved 21.7 billion events at ATLAS and 6.6 billion events at HRIBF.

Documentation: Official letters from ANL and ORNL management to NP Office reporting and certifying accuracy of recorded number of events at ATLAS and HRIBF (per documented control process). Documentation resides in the Office of Nuclear Physics (SC-26) files.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

G

Record at least 80% of the weighted average number of billions of events recorded by experiment in Hall A, Hall B, and Hall C at the Continuous Electron Beam Accelerator Facility. The FY06 Baseline weighted average is 3.62 (1.45, 7.70, 1.70); so at least 80% of the weighted average is 2 (1.16, 6.16, 1.36).(SC GG 5.20.2)

Commentary: Milestone met and Annual Target exceeded. The weighted average number of 3.28 billion events in Hall A, Hall B and Hall C exceeds the annual target. Recorded 1.01 billion events in Hall A; 8.07 billion events in Hall B; and 0.75 billion events in Hall C.

Documentation: Quarterly: Email from TJNAF management to NP program office reporting and certifying accuracy of recorded number of events in Hall A, B, C at CEBAF for that quarter (per documented control process). EOY: Official letter from TJNAF management to NP Office reporting and certifying accuracy of recorded number of events in Hall A, B, C at CEBAF (per documented control process). Documentation resides in the Office of Nuclear Physics (SC-26) files.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

Program Goal: Nuclear Physics (cont.)**G****Achieve at least 80% average operation time of the scientific user facilities as a percentage of the total scheduled annual operating time (SC GG 5.20.3)**

Commentary: Milestone met. NP user facilities (ATLAS, HRIBF and CEBAF) achieved 95.2% reliability of the uptime/scheduled time, exceeding the Quarterly milestone.

Documentation: Official letters from ANL (ATLAS), BNL (RHIC), ORNL (HRIBF), and TJNAF (CEBAF) management to NP Office reporting and certifying annual achieved operation time of the user facility (per documented control process); NP program office worksheet showing subsequent calculation and compiled average of the achieved operation time as a percent of total scheduled annual operating time.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

FY 06

FY 05

FY 04

FY 03

Program Goal: Biological and Environmental Research Provide the biological and environmental discoveries necessary to clean and protect our environment, offer new energy alternatives, and fundamentally alter the future of medical care and human health. (SC GG 5.21)

G**G****G**

Commentary: **Missing**

FY 2005 Annual Targets**G****Develop predictive model for contaminant transport that incorporates complex biology, hydrology, and chemistry of the subsurface. Validate model through field tests (SC GG 5.21.1)**

Commentary: Q3 Milestone met. Model results from Q1 were compared to corresponding Oak Ridge Field Research Center field data. Model predictions of stimulated subsurface microbial processes agreed with field data collected during single well (batch) and multi-well (flush) field tests at the Oak Ridge Field Research Center. Increases in biomass, the consumption of energetically favorable electron acceptors and precipitation of radionuclides (uraninite) were reported and observed to be consistent with modeled predictions.

Documentation: Emails reporting the results and publication/availability of the results (per documented control process). The e-mails reside at <http://www.lbl.gov/NABIR/generalinfo/>

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

Program Goal: Biological and Environmental Research (con't)**G**

Increase the rate of DNA sequencing -- Number (in billions) of base pairs of high quality (less than one error in 10,000 bases) DNA microbial and model organism genome sequence produced annually. In FY 2006 at least 30 billion base pairs will be sequenced (SC GG 5.21.2)

Commentary: Q3 Milestone met. Sequenced 7.5 billion base pairs of high quality DNA.

Documentation: Emails reporting the results and data availability (per documented control process). Production Genomics Facility – <http://www.jgi.doe.gov/sequencing/statistics.html>.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Improve climate models: Produce a new continuous time series of retrieved cloud properties at ARM site and evaluate the extent of agreement between climate model simulations of water vapor concentration and cloud properties and measurements of these quantities on time scales of 1 to 10 days. (SC GG 5.21.3)

Commentary: Q3 Milestone met. Vertical profiles of the liquid/ice water content and liquid/ice cloud particle effective radius and cloud fraction at 20-minute intervals and over 230 vertical levels have been produced for a one-year time series. The data and documentation are available from the ARM Data Archive, <http://www.archive.arm.gov/microbase/>.

Documentation: Emails reporting the results and publication/availability of the results (per documented control process). The e-mails reside at <http://asd.llnl.gov/asc/>.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

The average achieved operation time of the (climate change) scientific user facilities as a percentage of the total scheduled annual operating time in FY06 is greater than 96% (FACE) and 98% (ARM) (SC GG 5.21.4)

Commentary: Q3 Milestone met. BER scientific user facilities operated on schedule to achieve FY06 target. FACE facility operated 1204 hours during quarter, which is greater than the target of 1176 hours (i.e., the target is 96% of 1225 hours, or 1176 hours). Annual goal for FACE is achievable. The ARM facility met the goal and operated 2140 hours during the quarter.

Documentation: Emails reporting the results and data availability (per documented control process). The e-mails reside at: Free Air Carbon Dioxide Enrichment (FACE) Facilities - <http://www.sc.doe.gov/ober/ccrd/FACE.htm>
ARM Climate Research Facilities - <http://www.arm.gov/acrf/opsstats.stm>

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

The average achieved operation time of the (environment) scientific user facilities as a percentage of the total scheduled annual operating time is greater than 95% (SC GG 5.21.5)

Commentary: Q3 Milestone met. Environmental Molecular Sciences Laboratory achieved 1092 hours (100% of Q3 goal of 1092 hours) and is on target to meet its goal of greater than 95% of 4365 hours annually (4147).

Documentation: Emails reporting the results and data availability (per documented control process). The e-mails will reside at: Environmental Molecular Sciences Laboratory – <http://www.emsl.pnl.gov/homes/hours.shtml>

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

The average achieved operation time of the (efficiencies) scientific user facilities as a percentage of the total scheduled annual operating time is greater than 99% (CCFG) and 98% (PGE).GG 5.21.6)

Commentary: Milestone Met: BER scientific user facilities operated on schedule to achieve the FY06 target. Center for Comparative and Functional Genomics - 884 hours this quarter toward 3536 hours annually. Production Genomics Facility - 2100 hours this quarter toward 8400 hours annually.

Documentation: Emails reporting the results and data availability (per documented control process).

The e-mails will reside at: Center for Comparative and Functional Genomics -

<http://www.ornl.gov/sci/mgrf/facilities.shtml>

Production Genomics Facility - <http://www.jgi.doe.gov/sequencing/statistics.html>

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

Program Goal: Biological and Environmental Research (con't)

G

Complete design of a nominal 256 microelectrode array retinal prosthesis. Construct and test individual components for electronic integrity and biocompatibility in in vitro and animal test systems. (SC GG 5.21.7)

Commentary: Q3 Milestone met. Incorporate findings from pre-clinical and clinical testing of 60 electrode device into design of 256 electrode system.

Documentation: Emails reporting the results and publication/availability of the results (per documented control process). The e-mails reside at <http://www.doemedicalsciences.org/abt/retina/retinas.shtml>.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06

FY 05

FY 04

FY 03

G

G

G

Program Goal: Basic Energy Sciences Provide the scientific knowledge and tools to achieve energy independence, securing U.S. leadership and essential breakthroughs in basic energy sciences. (SC GG 5.22)

Commentary: **Missing**

FY 2005 Annual Targets

G

Demonstrate an Xray pulse of less than 100 femtoseconds in duration and containing more than 100 million photons per pulse(SC GG 5.22.1)

Commentary: Milestone met. Two 3rd-quarter FY06 progress reports were received from the key research performers that indicate the annual Target will be achieved.

Documentation: Report(s) from the research performer(s) with references to the source documentation that contains the final results for this Annual Target reside in the files of the Office of Basic Energy Sciences (SC-22).

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

G

Demonstrate first measurement of spatial resolutions for imaging in the hard and soft x regions, and spatial information limit for an electron microscope (nanometers). For FY06, the goal is greater than 100, 18, and 0.08 nanometers(SC GG 5.22.2)

Commentary: Milestone met. Seven 3rd-quarter FY06 progress reports were received from the key research performers that indicate the annual Target will be achieved.

Documentation: Report(s) from the research performer(s) with references to the source documentation that contains the final results for this Annual Target will reside in the files of the Office of Basic Energy Sciences (SC-22).

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

Program Goal: Basic Energy Sciences (con't)**G**

Achieve greater than 30 reacting species and 20 million grid points in a three-dimensional combustion reacting flow computer simulation, as a part of the Scientific Discovery through Advanced Computing (SciDAC)(SC GG 5.22.3)

Commentary: Milestone met. A 3rd-quarter FY06 progress report was received from the project leader that indicates the annual Target will be achieved.

Documentation: Report(s) from the research performer(s) with references to the source documentation that contains the final results for this Annual Target will reside in the files of the Office of Basic Energy Sciences (SC-22).

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

G

Cost-weighted mean percent variance from established cost and schedule baselines for major construction, upgrade, or equipment procurement projects. In FY06, it is at least 10/10%, respectively. (SC GG 5.22.4)

Commentary: Milestone met. Construction projects and Major Items of Equipment are on cost and schedule to achieve the FY06 targets according to the Department's established procedures for monitoring project milestones in the OECM Project Assessment Report (PAR).

Documentation: Supporting documents reside in the DOE Office of Engineering and Construction Management's (OECM, ME-90) Project Assessment and Reporting System (PARS) and with Basic Energy Science's Division of Scientific User Facilities (SC-22.3).

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Achieve an average operation time of the scientific user facilities as a percentage of the total scheduled annual operating time greater than 90%.(SC GG 5.22.5)

Commentary: Milestone met. Seven 3rd-quarter FY06 progress reports were received from the user facilities that indicate the annual Target will be achieved.

Documentation: Supporting documents consist of the required annual reports submitted to BES by all BES user facilities at the completion of each fiscal year. These final reports reside in the files of the Office of Basic Energy Sciences (SC-22). The total planned operating hours for this goal is obtained from the operating hours of these individual user facilities: NSLS 5,030; SSRL 4,900; ALS 5,520; APS 4,900; HFIR 2,360; IPNS 3,600; Lujan 4,300 for a total of 30,610 hours (27,550 hours is 90%).

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

FY 06

FY 05

FY 04

FY 03

Program Goal:Advanced Scientific Computing Research deliver forefront computational and networking capabilities to scientists nationwide that enable them to extend the frontiers of science, answering critical questions that range from the function of living cells to the power of fusion energy. (SC GG 5.23)

G**Y****Y**

Commentary: **Missing**

FY 2005 Annual Targets

G

Focus usage of the primary supercomputer at the National Energy Research Scientific Computing Center (NERSC) on capability computing. Percentage of the computing time used that is accounted for by computations that require at least 1/8 of the total resource. In FY06, the time used is at least 40%. (SC GG 5.23.1)

Commentary: For the third quarter of FY 06 (Apr 1, 2006 to Jun 30, 2006), 51.2% of Seaborg (NERSC computer) computational time went to jobs that required at least 1/8 of the total resource (768 or more CPUs).

Documentation: The data (per documented control process) is available at: <https://athena.nersc.gov/SPdocs/> (userid and password required, to be provided to reviewers). This data comes directly from the batch queue accounting system at NERSC. The Number of CPU hours accounted for by jobs that use at least 1/8 of the maximum number of available processors is divided by the total number of CPU hours delivered to all jobs in the batch system.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

DRAFT

Program Goal: Advanced Scientific Computing Research (cont.)

G

Average annual percentage increase in the computational effectiveness (either by simulating the same problem in less time or simulating a larger problem in the same time) of a subset of application codes within the Scientific Discovery through Advanced Computing (SciDAC) effort. FY06, the computational effectiveness is greater than 50% (SC GG 5.23.2)

Commentary: Milestone met. Additional performance data collected on entire FY 2006 suite of SciDAC applications. Analysis of results to date was detailed, and the analysis is underway.

Documentation: Test reports on selected codes. In the first Quarter of FY 2006, the Suite of SciDAC applications to be evaluated is proposed by ASCR to ASCAC. After the applications list is approved by ASCAC an initial set of baseline science problems for each application is defined in detail. The time to solution on each of these baseline science problems, using the application software as of the beginning of FY 2006 is determined. Progress towards the 50% goal is determined by monitoring the time to solution of the baseline science problem as the application software is improved during the FY or the increase in the size or complexity of the baseline science problem that is possible without increasing the time to solution. Reports detailing these evaluations reside in the files of the ASCR Office (SC-21).

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **NA**

FY 06

FY 05

FY 04

FY 03

Program Goal: Fusion Energy Research Answer the key scientific questions and overcome enormous technical challenges to harness the power that fuels a star, realizing by the middle of this century a landmark scientific achievement by bringing "fusion power to the grid. (SC GG 5.24)

G

G

G

Y

Commentary: **Missing**

FY 2005 Annual Targets

G

Conduct experiments on the major fusion facilities (DIII-D, Alcator C-Mod, NSTX) leading toward the predictive capability for burning plasmas and configuration optimization (SC GG 5.24.1)

Commentary: Milestone met. Work completed as agreed. See report on web. All beamline system hardware has been commissioned, and both ion sources have been reinstalled/reconditioned to design parameters. Initial operation to support the modified beam system and experiments has begun.

Documentation: <http://www.ofes.fusion.doe.gov/ProgramTargets/ProgramTargets.htm>

This website provides quarterly progress reports and documentation of achievement for this annual target. The results will be updated on a timely basis.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

Program Goal: Fusion Energy Research (con't)

G

Increase resolution in simulations of plasma phenomena optimizing confinement and predicting the behavior of burning plasmas require improved simulations of edge and core plasma phenomena, as the characteristics of the edge can strongly affect core confinement (SC GG 5.24.2)

Commentary: Milestone met. Work completed as agreed. See report on web. NIMROD and M3D have now demonstrated stabilizing effect of extended MHD terms. It has also been shown that plasma flows can have a significant impact on nonlinear evolution of ELM. This experience will contribute to successful completion of remaining 2006 milestone.

Documentation: <http://www.ofes.fusion.doe.gov/ProgramTargets/ProgramTargets.htm>

This website provides quarterly progress reports and documentation of achievement for this annual target. The results will be updated on a timely basis.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

G

Average achieved operation time of the major national fusion facilities (DIII-D, Alcator CMod, NSTX) as a percentage of the total planned operation time in FY06 of greater than 96% (SC GG 5.24.3)

Commentary: Milestone met. DIII-D resumed operations as planned at end of Long Torus Opening Activity (LTOA) in third quarter. DIII-D team has completed 3.5 weeks of operation and is on track to complete baseline 7 weeks of operation planned for FY 2006. C-Mod has exceeded its target of 14 weeks of operation in FY 2006, having completed 14.4 weeks thus far. In third quarter, lower hybrid radio frequency current drive was successfully demonstrated at ITER-level densities and magnetic field strength. NSTX team has completed 12.6 weeks of operation, exceeding target of 11 weeks of operation in FY 2006.

Documentation: <http://www.science.doe.gov/ofes/performance/targets.shtml>

This website provides quarterly progress reports and documentation of achievement for this annual target. The results will be updated on a timely basis.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **R**

G

Cost-weighted mean percent variance from established for major construction, upgrade, or equipment procurement projects in FY06 <10% (SC GG 5.24.4)

Commentary: Q3 milestone met. At end of May 2006, CPI was 0.97 and SPI was 0.99. With June 2006 data (which will be available by July 25, 2006), we expect both CPI and SPI to be greater than 0.9 for the third quarter.

Documentation: <http://ncsx.pppl.gov/Management/CPR.html>

This website provides monthly progress reports and documentation of achievement for this annual target. The results will be updated on a timely basis.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

DETAILED PERFORMANCE

— GENERAL GOAL 6: ENVIRONMENTAL MANAGEMENT —

General Goal 6: Environmental Management

Accelerate cleanup of nuclear weapons manufacturing and testing sites, completing cleanup of 108 contaminated sites by 2025.

FY 2006 Annual Performance Targets

G-Green (100%)	Y-Yellow (=80%, <100%)	R-Red (<80%)	U- Undeter- mined

3rd Qtr Program Costs (\$ in Millions):

FY 06	FY 05	FY 04	FY 03
	Y	R	Y

Program Goal: Environmental Management Based on EM's accelerated risk reduction and site closure initiative, EM is targeting 89 and 100 geographic sites to be completed by the end of FY 2006 and FY 2012, respectively. (EM GG 6.18)

Commentary:

FY 2006 Annual Targets

G

Package for disposition a cumulative total of 5,877 enriched uranium containers. This is an estimated increase of 1,980 containers over the planned cumulative total of 3,897 enriched uranium containers to be packaged for disposition at the end of FY 2006. (EM GG 6.18.1)

Commentary: The Department has exceeded its goals for FY 2006. Accomplishment of this measure will result in the Department meeting its goals for accelerated cleanup.

Documentation: Shipping Manifests and Disposal Records.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **R**

G

Package for disposition a cumulative total of 2,477 containers of high level waste. This is an estimated increase of 250 containers over the planned cumulative total of 2,227 containers of high level waste to be packaged for disposition at the end of FY 2006. (EM GG 6.18.2)

Commentary: The Department has exceeded its goals for FY 2006. Accomplishment of this measure will result in the Department meeting its goals for accelerated cleanup.

Documentation: Quality Assurance Inspection Records for waste packaging.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **Y**

Program Goal: Environmental Management (con't)

R

Dispose at the Waste Isolation Plant (WIPP) a cumulative total of 55,211 cubic meters of transuranic (TRU) waste. This is an estimated increase of 14,500 m3 over the planned cumulative total of 40,711 m3 of TRU waste to be disposed at WIPP at the end of FY 2005.(EM GG 6.18.3)

Commentary: While the Department has not met its goal for FY 2006, the Department is still on track to meeting its goals for accelerated cleanup. The Department is also evaluating its schedule for shipments and will evaluate new targets for FY 2007.

Documentation: Shipping Manifests.

Action Plan: DOE is working with Idaho and the other sites to meet its goals. Also, a complex-wide evaluation of the current goals that were originally set for this metric are being re-evaluated.

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **R** FY 2003: **G**

G

Complete remediation work at a cumulative total of 124 radioactive facilities.(EM GG 6.18.4)

Commentary: The Department has exceeded its goals for FY 2006. Accomplishment of this measure will result in the Department meeting its goals for accelerated cleanup.

Documentation: State and federal regulator acceptance of the Remedial Action Report.

Related Prior Year Target Performance: FY 2005: **Y** FY 2004: **Y** FY 2003: **G**

G

Complete remediation work at a cumulative total of 6,069 release sites. This is an estimated increase of 400 release sites over the planned cumulative total of 5,669 release site remediation completions at the end of FY 2005.(EM GG 6.18.5)

Commentary: The Department has met its goal for FY 2006. Accomplishment of this measure will result in the Department meeting its goals for accelerated cleanup.

Documentation: Decommissioning Project Final Report. State and federal regulator acceptance of completion report.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **G** FY 2003: **G**

G

Remain within the limits of no greater than a 10% negative cost and schedule variance for the overall cost-weighted mean cost and schedule performance index for the 80 operating projects and nine line item projects that are baselined and under configuration control.(EM GG 6.18.6)

Commentary: The Department has exceeded its goals for FY 2006. Accomplishment of this measure will result in the Department meeting its goals for accelerated cleanup.

Documentation: Earned value data reported monthly by sites into IPABS

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **G**

G

Conduct surveillance and maintenance activities at a cumulative total of 69 sites to ensure the effectiveness of cleanup remedies in accordance with legal agreements, or identify sites subject to additional remedial action in order to ensure effectiveness (EM GG 6.26.1)

Commentary: The Department met its goal for FY 2006 of completing surveillance and maintenance activities at 77 sites, including Pinellas and Maxey Flats, in accordance with legal agreements. Accomplishment of this measure ensures continued effectiveness of cleanup remedies, and thereby protection of human health and the environment.

Documentation: Documentation is contained in the Grand Junction Office files.

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

DETAILED PERFORMANCE

— GENERAL GOAL 7: NUCLEAR WASTE —

General Goal 7: Nuclear Waste

License and construct a permanent repository for nuclear waste at Yucca Mountain and begin acceptance of waste.

FY 2006 Annual Performance Targets

G-Green (100%)	Y-Yellow (=80%, <100%)	R-Red (<80%)	U- Undeter- mined

3rd Qtr Program Costs (\$ in Millions):

FY 06
FY 05
FY 04
FY 03

Program Goal: Nuclear Waste Disposal License and construct a permanent repository for nuclear waste at Yucca Mountain and begin acceptance of waste. (RW GG 7.25)

G **R** **G** **R**

Commentary:

FY 2006 Annual Targets

G **Submit for ESAAB approval a modified critical decision package that describes the design and operating plan for the repository, and provides a schedule for license application completion and docketing. (RW GG 7.25.1)**

Commentary: The Department has exceeded its goals for FY 2006. Accomplishment of this measure will result in the Department meeting its goals for accelerated cleanup.

Documentation: The CD-1 package that is submitted to ESAAB.

Related Prior Year Target Performance: FY 2005: **R** FY 2004: **G** FY 2003: **Y**

G **Publish draft rail alignment environmental impact statement (EIS) in the Federal Register. (RW GG 7.25.2)**

Commentary: Comments were received from all cooperating agencies and incorporated into the Draft Rail Alignment Environmental Impact Statement.

Documentation: Receipt of written comments from EIS Management Council

Related Prior Year Target Performance: FY 2005: **G** FY 2004: **NA** FY 2003: **NA**

G **Reduce the ratio of program direction/contractor management program funding to total program funding by 10% from the FY 2005 baseline ratio of 0.274. (RW GG 7.25.3)**

Commentary: Contractor costs have been reduced by 10 percent from the FY 2005 baseline ratio.

Documentation: OCRWM monthly cost performance reports

Related Prior Year Target Performance: FY 2004: **G** FY 2003: **NA** FY 2002: **NA**

DRAFT

STATUS OF UNMET FY 2005 PERFORMANCE TARGETS

DRAFT



FINANCIAL RESULTS

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MESSAGE FROM THE CHIEF FINANCIAL OFFICER



[Text to be provided in subsequent drafts.]

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CONSOLIDATED AND COMBINED FINANCIAL STATEMENTS

The Department's financial statements have been prepared to report the financial position and results of operations of the Department of Energy, pursuant to the requirements of the Chief Financial Officers Act of 1990, the Government Management Reform Act of 1994, and the Office of Management and Budget's (OMB) Circular A-136, "Financial Reporting Requirements."

The responsibility for the integrity of the financial information included in these statements rests with the management of the Department of Energy. An independent certified public accounting firm selected by the Department's Office of Inspector General was engaged to perform an audit of the Department's principal financial statements. The report issued by the independent accountants is included in this report.

The following provides a brief description of the nature of each required financial statement.

The **Consolidated Balance Sheets** describe the assets, liabilities, and net position components of the Department.

The **Consolidated Statements of Net Cost** summarize the Department's operating costs by the seven long-term general goals identified in the Department's FY 2003 Strategic Plan.

All operating costs reported reflect full costs, including all direct and indirect costs, consumed by a program or responsibility segment. The full costs are reduced by earned revenues to arrive at net costs. The Net Cost of Operations is reported on the Consolidated Statements of Net Cost and also on the Consolidated Statements of Financing.

The **Consolidated Statements of Changes in Net Position** identify appropriated funds used as a financing source for goods, services, or capital acquisitions. This statement presents the accounting events that caused changes in the net position section of the Consolidated Balance Sheets from the beginning to the end of the reporting period.

The **Combined Statements of Budgetary Resources** identify the Department's budget authority. Budget authority is the authority that Federal law gives to agencies to incur financial obligations that will eventually result in outlays or expenditures. Specific forms of budget authority that the Department receives are appropriations, borrowing authority, contract authority, and spending authority from offsetting collections. The Combined Statements of Budgetary Resources provides information on budgetary resources available to the Department during the year and the status of those resources at the end of the year. Detail on the amounts shown in the Combined Statements of Budgetary Resources is included in the Required Supplementary Information section on the schedule Budgetary Resources by Major Account.

The **Consolidated Statements of Financing** reconcile the obligations incurred to finance operations with the net cost of operations. Obligations incurred include amounts of orders placed, contracts awarded, services received, and similar transactions that require payment during the same or future period.

The **Consolidated Statements of Custodial Activities** identify revenues collected by the Department on behalf of others. These revenues primarily result from power marketing administrations that sell power generated by hydroelectric facilities owned by the Corps of Engineers and the Bureau of Reclamation.

PRINCIPAL STATEMENTS

U. S. Department of Energy Consolidated Balance Sheets

As of June 30, 2006 and September 30, 2005

(\$ in millions)

	June 30, 2006	FY 2005 (Unaudited)
ASSETS: ^(Note 2)		
Intragovernmental Assets:		
Fund Balance with Treasury ^(Note 3)	\$ 23,221	\$ 15,634
Investments, Net ^(Note 4)	23,461	22,197
Accounts Receivable, Net ^(Note 5)	693	652
Regulatory Assets ^(Note 6)	4,480	4,536
Other Assets	5	21
Total Intragovernmental Assets	\$ 51,860	\$ 43,040
Investments, Net ^(Note 4)	223	230
Accounts Receivable, Net ^(Note 5)	4,105	3,990
Inventory, Net ^(Note 7)		
Strategic Petroleum and Northeast Home Heating Oil Reserve	19,156	19,314
Nuclear Materials	21,264	21,285
Other Inventory	465	444
General Property, Plant, and Equipment, Net ^(Note 8)	23,911	23,190
Regulatory Assets ^(Note 6)	5,822	5,653
Other Non-Intragovernmental Assets ^(Note 9)	4,130	4,591
Total Assets	\$ 130,936	\$ 121,737
LIABILITIES: ^(Note 10)		
Intragovernmental Liabilities:		
Accounts Payable	\$ 129	\$ 56
Debt ^(Note 11)	10,187	9,958
Deferred Revenues and Other Credits ^(Note 12)	99	125
Other Liabilities ^(Note 13)	249	169
Total Intragovernmental Liabilities	\$ 10,664	\$ 10,308
Accounts Payable	2,533	3,883
Debt Held by the Public ^(Note 11)	6,606	6,574
Deferred Revenues and Other Credits ^(Note 12)	23,239	21,592
Environmental Cleanup and Disposal Liability ^(Note 14)	214,082	189,710
Pension and Other Actuarial Liability ^(Note 15)	12,394	11,727
Other Non-Intragovernmental Liability ^(Note 13)	3,272	3,664
Contingencies and Commitments ^(Note 16)	7,028	5,058
Total Liabilities	\$ 279,818	\$ 252,516
NET POSITION:		
Unexpended Appropriations	\$ -	\$ 8,978
Unexpended Appropriations - Earmarked Funds ^(Note 17)	113	-
Unexpended Appropriations - Other Funds	16,440	-
Cumulative Results of Operations	-	(139,757)
Cumulative Results of Operations - Earmarked Funds ^(Note 17)	(13,074)	-
Cumulative Results of Operations - Other Funds	(152,361)	-
Total Net Position	\$ (148,882)	\$ (130,779)
Total Liabilities and Net Position	\$ 130,936	\$ 121,737

The accompanying notes are an integral part of these statements

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U. S. Department of Energy

Consolidated Statements of Net Cost

For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005
(\$ in millions)

	June 30, 2006	FY 2005 (Unaudited)
STRATEGIC GOALS:		
Defense:		
Nuclear Weapons Stewardship:		
Total Program Costs	\$ 4,808	\$ 6,779
Nuclear Nonproliferation:		
Total Program Costs	\$ 799	\$ 1,191
Naval Reactors:		
Program Costs	562	810
Less: Earned Revenues ^(Note 18)	(2)	(18)
Net Cost of Naval Reactors	\$ 560	\$ 792
Net Cost of Defense	\$ 6,167	\$ 8,762
Energy:		
Program Costs	5,056	6,617
Less: Earned Revenues ^(Note 18)	(3,889)	(4,120)
Net Cost of Energy	\$ 1,167	\$ 2,497
Science:		
Total Program Costs	\$ 2,517	\$ 3,565
Environment:		
Environmental Management:		
Program Costs	4,367	6,719
Less: Earned Revenues ^(Note 18)	(156)	(151)
Net Cost of Environmental Management	\$ 4,211	\$ 6,568
Nuclear Waste:		
Program Costs	346	521
Less: Earned Revenues ^(Note 18)	(172)	(321)
Net Cost of Nuclear Waste	\$ 174	\$ 200
Net Cost of Environment	\$ 4,385	\$ 6,768
Net Cost of Strategic Goals	\$ 14,236	\$ 21,592
OTHER PROGRAMS:		
Reimbursable Programs:		
Program Costs	2,515	3,314
Less: Earned Revenues ^(Note 18)	(2,473)	(3,251)
Net Cost of Reimbursable Programs	\$ 42	\$ 63
Other Programs: ^(Note 19)		
Program Costs	454	667
Less: Earned Revenues ^(Note 18)	(263)	(297)
Net Cost of Other Programs	\$ 191	\$ 370
Costs Applied to Reduction of Legacy Environmental Liabilities ^(Note 20)	\$ (4,361)	\$ (6,637)
Costs Not Assigned ^(Note 21)	\$ 31,293	\$ 25,499
Net Cost of Operations	\$ 41,401	\$ 40,887

The accompanying notes are an integral part of these statements

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U. S. Department of Energy

Consolidated Statements of Changes in Net Position ^(Note 17)

For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005

(\$ in millions)

	June 30, 2006			FY 2005 (Unaudited)	
	Earmarked Funds	All Other Funds	Eliminations	Consolidated	Consolidated
CUMULATIVE RESULTS OF OPERATIONS:					
Beginning Balances	\$ (9,774)	\$ (129,983)	\$ -	\$ (139,757)	\$ (129,187)
Adjustments:					
Corrections of Errors	62	-	-	62	-
Beginning Balances, as adjusted	\$ (9,712)	\$ (129,983)	\$ -	\$ (139,695)	\$ (129,187)
Budgetary Financing Sources:					
Appropriations Used	\$ 247	\$ 16,187	\$ -	\$ 16,434	\$ 23,711
Nonexchange Revenue	43	3	-	46	35
Donations and Forfeitures of Cash	-	13	-	13	13
Transfers - In/(Out) Without Reimbursement	(209)	48	-	(161)	(154)
Other Financing Sources (Non-Exchange):					
Donations and Forfeitures of Cash	-	-	-	-	340
Transfers - In/(Out) Without Reimbursement	(613)	(111)	-	(724)	2,132
Imputed Financing from Costs Absorbed by Others	-	67	-	67	4,279
Other	447	-	(461)	(14)	(39)
Total Financing Sources	\$ (85)	\$ 16,207	\$ (461)	\$ 15,661	\$ 30,317
Net Costs of Operations	(3,277)	(38,585)	461	(41,401)	(40,887)
Net Change	\$ (3,362)	\$ (22,378)	\$ -	\$ (25,740)	\$ (10,570)
Total Cumulative Results of Operations	\$ (13,074)	\$ (152,361)	\$ -	\$ (165,435)	\$ (139,757)
UNEXPENDED APPROPRIATIONS:					
Beginning Balances	\$ 13	\$ 8,972	\$ -	\$ 8,985	\$ 8,784
Budgetary Financing Sources:					
Appropriations Received ^(Note 23)	352	23,898	-	24,250	23,782
Appropriations Transferred - In/(Out)	-	6	-	6	312
Other Adjustments	(5)	(249)	-	(254)	(189)
Appropriations Used	(247)	(16,187)	-	(16,434)	(23,711)
Total Budgetary Financing Sources	\$ 100	\$ 7,468	\$ -	\$ 7,568	\$ 194
Total Unexpended Appropriations	\$ 113	\$ 16,440	\$ -	\$ 16,553	\$ 8,978
Net Position	\$ (12,961)	\$ (135,921)	\$ -	\$ (148,882)	\$ (130,779)

The accompanying notes are an integral part of these statements

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U. S. Department of Energy

Combined Statements of Budgetary Resources

For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005

(\$ in millions)

	June 30, 2006	FY 2005 (Unaudited)
BUDGETARY RESOURCES		
Unobligated balance, Brought Forward, October 1 ^(Note 23)	\$ 4,241	\$ 4,036
Recoveries of Prior Year Unpaid Obligations	80	34
Budget Authority:		
Appropriations ^(Note 23)	25,600	25,062
Borrowing Authority	437	315
Contract Authority	-	1,018
Spending Authority from Offsetting Collections:		
Earned:		
Collected	5,490	7,224
Change in Receivables from Federal sources	148	131
Change in Unfilled Customer Orders:		
Advances Received	48	30
Without Advance from Federal Sources	(250)	212
Anticipated For Rest of Year, Without Advance	2,683	-
Subtotal	\$ 34,156	\$ 33,992
Nonexpenditure Transfers, Net, Anticipated and Actual	(40)	169
Temporarily not Available Pursuant to Public Law	(266)	(266)
Permanently Not Available	(408)	(1,848)
Total Budgetary Resources ^(Note 23)	\$ 37,763	\$ 36,117
STATUS OF BUDGETARY RESOURCES		
Obligations Incurred:		
Direct	\$ 20,990	\$ 24,879
Exempt from Apportionment	1,804	3,253
Reimbursable	2,727	3,744
Total Obligations Incurred ^(Note 23)	\$ 25,521	\$ 31,876
Unobligated Balance:		
Apportioned	8,507	2,588
Exempt from Apportionment	2,288	24
Unobligated Balance Not Available ^(Note 23)	1,447	1,629
Total Status of Budgetary Resources	\$ 37,763	\$ 36,117
CHANGE IN OBLIGATED BALANCE		
Obligated Balance, Net:		
Unpaid Obligations, Brought Forward, October 1	\$ 17,145	\$ 17,247
Less: Uncollected Customer Payments from Federal Sources, Brought Forward, October 1	(4,687)	(4,344)
Total Unpaid Obligated Balance, Net, October 1	\$ 12,458	\$ 12,903
Obligations Incurred ^(Note 23)	25,521	31,876
Less: Gross Outlays	(22,781)	(31,856)
Less: Recoveries of Prior Year Unpaid Obligations, Actual	(34)	(34)
Change in Uncollected Customer Payments from Federal Sources	102	(343)
	\$ 15,266	\$ 12,546
Obligated Balance, Net, End of Period:		
Unpaid Obligations	\$ 19,851	\$ 17,232
Less: Uncollected Customer Payments from Federal Sources	(4,585)	(4,687)
Total, Unpaid Obligated Balance, Net, End of Period	\$ 15,266	\$ 12,545
NET OUTLAYS		
Gross Outlays	\$ 22,781	\$ 31,856
Less: Offsetting collections	(5,538)	(7,253)
Less: Distributed Offsetting Receipts ^(Note 23)	(1,165)	(3,236)
Net Outlays ^(Note 23)	\$ 16,078	\$ 21,367

The accompanying notes are an integral part of these statements

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U. S. Department of Energy

Consolidated Statements of Financing

For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005

(\$ in millions)

	June 30, 2006	FY 2005 (Unaudited)
RESOURCES USED TO FINANCE ACTIVITIES:		
Budgetary Resources Obligated:		
Obligations Incurred	\$ 25,521	\$ 31,876
Less: Spending Authority from Offsetting Collections and Recoveries	(5,470)	(7,631)
Obligations, Net of Offsetting Collections and Recoveries	\$ 20,051	\$ 24,245
Less: Offsetting Receipts	(1,165)	(3,236)
Net Obligations	\$ 18,886	\$ 21,009
Other Resources:		
Donations	-	1
Imputed Financing from Costs Absorbed by Others	67	4,279
Transfers-In/(Out) Without Reimbursement	(724)	2,132
Nuclear Waste Fund Offsetting Receipts, Deferred ^(Note 22)	(152)	2,095
Other	778	13
Net Other Resources Used to Finance Activities	\$ (31)	\$ 8,520
Total Resources Used to Finance Activities	\$ 18,855	\$ 29,529
RESOURCES USED TO FINANCE ITEMS NOT PART OF THE NET COST OF OPERATIONS:		
Change in Budgetary Resources Obligated for Goods, Services and Benefits Ordered But Not Yet Provided	\$ (3,794)	\$ 72
Resources that Finance the Acquisition of Assets	(2,159)	(5,750)
Resources that Fund Expenses Recognized in Prior Periods	(5,155)	(6,464)
Budgetary Offsetting Collections and Receipts that Do Not Affect the Net Cost of Operations	(55)	175
Other Resources and Adjustments	336	(410)
Total Resources Used to Finance Items Not Part of the Net Cost of Operations	\$ (10,827)	\$ (12,377)
Total Resources Used to Finance the Net Cost of Operations	\$ 8,028	\$ 17,152
NET COST OF ITEMS THAT DO NOT REQUIRE OR GENERATE RESOURCES IN CURRENT PERIOD:		
Components Requiring or Generating Resources in Future Periods:		
Increase in Unfunded Liability Estimates ^(Note 24)	\$ 32,606	\$ 21,200
Increase in Exchange Revenue Receivable from the Public	(166)	2
Total Components Requiring or Generating Resources in Future Periods	\$ 32,440	\$ 21,202
Components Not Requiring or Generating Resources:		
Depreciation and Amortization	640	1,818
Revaluation of Assets and Liabilities	(175)	(194)
Other	449	909
Total Components Not Requiring or Generating Resources	\$ 914	\$ 2,533
Total Net Cost of Items that Do Not Require or Generate Resources in Current Period	\$ 33,354	\$ 23,735
NET COST OF OPERATIONS	\$ 41,382	\$ 40,887

The accompanying notes are an integral part of these statements

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U. S. Department of Energy
Consolidated Statements of Custodial Activities
For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005
(\$ in millions)

	June 30, 2006	FY 2005 (Unaudited)
SOURCES OF COLLECTIONS:		
Cash Collections: ^(Note 25)		
Interest	\$ 13	\$ 20
Federal Energy Regulatory Commission	18	53
Power Marketing Administration Custodial Revenue	379	657
Other Custodial Revenue	-	3
Total Cash Collections	\$ 410	\$ 733
Accrual Adjustment	7	(19)
Total Custodial Revenue	\$ 417	\$ 714
DISPOSITION OF REVENUE:		
Transferred to Others:		
Department of the Treasury	(133)	(624)
Army Corps of Engineers	31	(5)
Bureau of Reclamation	(197)	(79)
Others	(80)	(3)
Decrease in Amounts to be Transferred	(38)	(3)
Net Custodial Activity	\$ -	\$ -

The accompanying notes are an integral part of these statements

NOTES TO THE CONSOLIDATED AND COMBINED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

A. Basis of Presentation

These consolidated and combined financial statements have been prepared to report the financial position and results of operations of the U.S. Department of Energy (the Department). The statements were prepared from the books and records of the Department in accordance with generally accepted accounting principles applicable to Federal entities.

B. Description of Reporting Entity

The Department is a cabinet level agency of the Executive Branch of the U.S. Government. The Department is not subject to Federal, state, or local income taxes. The Department's headquarters organizations are located in Washington, D.C., and Germantown, Maryland, and consist of an executive management structure that includes the Secretary; the Deputy Secretary; the Under Secretary of Energy; the Under Secretary for Nuclear Security/Administrator for National Nuclear Security Administration; the Under Secretary for Science; Secretarial staff organizations; and program organizations that provide technical direction and support for the Department's principal programmatic missions. The Department also includes the Federal Energy Regulatory Commission, which is an independent regulatory organization responsible for setting rates and charges for the transportation and sale of natural gas and for the transmission and sale of electricity and the licensing of hydroelectric power projects.

The Department has a complex field structure comprised of operations offices, field offices, power marketing administrations (Bonneville Power Administration, Southeastern Power Administration, Southwestern Power Administration, and Western Area Power Administration), laboratories, and other facilities. The majority of the Department's environmental cleanup, energy research and development, and testing and production activities are carried out by major contractors. These contractors operate, maintain, or support the Department's Government-owned facilities on a day-to-day basis and provide other special work under the direction of DOE field organizations. The Department indemnifies these contractors against financial responsibility from nuclear accidents under the provisions of the Price-Anderson Act.

These contractors have unique contractual relationships with the Department. In most cases, their charts of accounts and accounting systems are integrated with the Department's accounting system through a home office-branch type of arrangement. Additionally, the Department is responsible for funding certain defined benefit pension plans, as well as postretirement benefits such as medical care and life insurance, for the employees of these contractors. As a result, the Department's financial statements reflect not only the costs incurred by these contractors, but also include certain contractor assets (e.g., employee advances and prepaid pension costs) and liabilities (e.g., accounts payable, accrued expenses including payroll and benefits, and pension and other actuarial liabilities) that would not be reflected in the financial statements of other Federal agencies that do not have these unique contractual relationships.

C. Basis of Accounting

Transactions are recorded on an accrual accounting basis and a budgetary basis. Under the accrual method, revenues are recognized when earned, and expenses are recognized when liabilities are incurred, without regard to receipt or payment of cash. Budgetary accounting facilitates compliance with legal constraints and controls over the use of Federal funds. All material intra-departmental balances and transactions have been eliminated in the Consolidated Balance Sheets, Consolidated Statements of Net Cost, Consolidated Statements of Changes in Net Position, Consolidated Statements of Financing, and Consolidated Statements of Custodial Activities. The Combined Statements of Budgetary Resources are prepared on a combined basis and do not include intra-departmental eliminations.

Throughout these financial statements, intragovernmental assets, liabilities, earned revenue, and costs have been classified according to the type of entity with whom the transactions were made. Intragovernmental assets and liabilities are those from or to other federal entities. Intragovernmental earned revenue represents collections or accruals of revenue from other federal entities, and intragovernmental costs are payments or accruals to other federal entities.

D. Fund Balance with Treasury

Funds with the Department of the Treasury (Treasury) primarily represent appropriated and revolving funds that are available to pay current liabilities and finance authorized purchases. Disbursements and receipts are processed by Treasury, and the Department's records are reconciled with those of Treasury (see Note 3).

E. Investments, Net

All investments are reported at cost net of amortized premiums and discounts as it is the Department's intent to hold the investments to maturity. Premiums and discounts are amortized using the effective interest yield method (see Note 4).

F. Accounts Receivable, Net

The amounts due for non-intragovernmental (non-Federal) receivables are stated net of an allowance for uncollectable accounts. The estimate of the allowance is based on past experience in the collection of receivables and an analysis of the outstanding balances (see Note 5).

G. Inventory, Net

Stockpile materials are recorded at historical cost in accordance with SFFAS No. 3, Accounting for Inventory and Related Property, except for certain nuclear materials identified as surplus or excess to the Department's needs. These nuclear materials are recorded at their net realizable value (see Note 7).

H. General Property, Plant, and Equipment, Net

Property, plant, and equipment that are purchased, constructed, or fabricated in-house, including major modifications or improvements, are capitalized at cost. The Department's property, plant, and equipment capitalization threshold is \$50,000, except for the power marketing administrations, which use thresholds ranging from \$5,000 to \$10,000. The capitalization threshold for internal use software is \$750,000, except for the power marketing administrations, which use thresholds ranging from \$5,000 to \$100,000 (see Note 8).

Costs of construction are capitalized as construction work in process. Upon completion or beneficial occupancy or use, the cost is transferred to the appropriate property account. Property, plant, and equipment related to environmental management facilities storing and processing the Department's environmental legacy wastes are not capitalized.

Depreciation expense is generally computed using the straight line method. The units of production method is used only in special cases where applicable, such as depreciating automotive equipment on a mileage basis and construction equipment on an hourly use basis. The ranges of service lives are generally as follows:

Structures and facilities	25 - 50 years
ADP software	3 - 7 years
Equipment	5 - 40 years
Land and land rights	duration of period or 50 years, whichever is less

I. Liabilities

Liabilities represent amounts of monies or other resources likely to be paid by the Department as a result of a transaction or event that has already occurred. However, no liability can be paid by the Department absent an authorized appropriation. Liabilities for which an appropriation has not been enacted are, therefore, classified as not covered by budgetary resources (see Note 10), and there is no certainty that the appropriations will be enacted. Also, liabilities of the Department arising from other than contracts can be abrogated by the Government acting in its sovereign capacity.

J. Earmarked Funds

The Department implemented SFFAS 27, Identifying and Reporting Earmarked Funds in FY 2006, which required separate identification of the earmarked funds on the Consolidated Balance Sheets, Consolidated Statements of Changes in Net Position, and selected footnotes.

Earmarked funds are financed by specifically identified revenues, often supplemented by other financing sources, which remain available over time. These specifically identified revenues and other financing sources are required by statute to be used for designated activities, benefits or purposes, and must be accounted for separately from the Government's general revenues (see Note 17).

In accordance with the implementation guidance, earmarked funds are not separately identified in FY 2005.

K. Accrued Annual, Sick, and Other Leave

Federal employees' annual leave is accrued as it is earned, and the accrual is reduced annually for actual leave taken. Each year, the accrued annual leave balance is adjusted to reflect the latest pay rates. To the

extent that current or prior year appropriations are not available to fund annual leave earned but not taken, funding will be obtained from future financing sources. Sick leave and other types of nonvested leave are expensed as taken.

L. Retirement Plans

Federal Employees

There are two primary retirement systems for Federal employees. Employees hired prior to January 1, 1984, may participate in the Civil Service Retirement System (CSRS). On January 1, 1984, the Federal Employees Retirement System (FERS) went into effect pursuant to Public Law 99-335. Most employees hired after December 31, 1983, are automatically covered by FERS and Social Security. Employees hired prior to January 1, 1984, elected to either join FERS and Social Security or remain in CSRS. A primary feature of FERS is that it offers a savings plan to which the Department automatically contributes one percent of pay and matches any employee contribution up to an additional four percent of pay. For most employees hired since December 31, 1983, the Department also contributes the employer's matching share for Social Security. The Department does not report CSRS or FERS assets, accumulated plan benefits, or unfunded liabilities, if any, applicable to its employees. Reporting such amounts is the responsibility of the Office of Personnel Management and the Federal Employees Retirement System. The Department does report, as an imputed financing source and a program expense, the difference between its contributions to Federal employee pension and other retirement benefits and the estimated actuarial costs as computed by the Office of Personnel Management.

Contractor Employees

Most of the Department's contractors maintain a defined benefit pension plan under which they promise to pay employees specified benefits, such as a percentage of the final average pay for each year of service. The Department's cost under the contracts includes reimbursement of annual employer contributions to the pension plans.

Each year an amount is calculated for employers to contribute to the pension plan to ensure the plan assets are sufficient to provide for the full accrued benefits of contractor employees in the event that the plan is terminated. The level of contributions is dependent on actuarial assumptions about the future, such as the interest rate, employee turnover and deaths, age of retirement, and salary progression. The Department reports assets and liabilities of these pension plans as if it were the plan sponsor (see Note 15).

M. Net Cost of Operations

Program costs are summarized in the Consolidated Statements of Net Cost by the seven long-term general goals identified in the Department's September 30, 2003 Strategic Plan. Program costs reflect full costs including all direct and indirect costs consumed by these general goals. Full costs are reduced by exchange (earned) revenues to arrive at net operating cost (see Notes 18 and 19). The general goals are summarized below.

- Nuclear Weapons Stewardship – Ensure that our nuclear weapons continue to serve their essential deterrence role by maintaining and enhancing the safety, security, and reliability of the U.S. nuclear weapons stockpile.

- **Nuclear Nonproliferation** – Provide technical leadership to limit or prevent the spread of materials, technology, and expertise relating to weapons of mass destruction; advance the technologies to detect the proliferation of weapons of mass destruction worldwide; and eliminate or secure inventories of surplus materials and infrastructure usable for nuclear weapons.
- **Naval Reactors** – Provide the Navy with safe, militarily effective nuclear propulsion plants and ensure their continued safe and reliable operation.
- **Energy Security** – Improve energy security by developing technologies that foster a diverse supply of reliable, affordable, and environmentally sound energy by providing for reliable delivery of energy, guarding against energy emergencies, exploring advanced technologies that make a fundamental improvement in our mix of energy options, and improving energy efficiency.
- **World-Class Scientific Research Capacity** – Provide world-class scientific research capacity needed to: ensure the success of Department missions in national and energy security; advance the frontiers of knowledge in physical sciences and areas of biological, medical, environmental, and computational sciences; or provide world-class research facilities for the Nation's science enterprise.
- **Environmental Management** – Accelerate cleanup of nuclear weapons manufacturing and testing sites, completing cleanup of 114 contaminated sites by 2045 or later.
- **Nuclear Waste** – License and construct a permanent repository for nuclear waste at Yucca Mountain.

N. Revenues and Other Financing Sources

The Department receives the majority of the funding needed to perform its mission through Congressional appropriations. These appropriations may be used, within statutory limits, for operating and capital expenditures. In addition to appropriations, financing sources include exchange and non-exchange revenues, imputed financing sources, and custodial revenues.

Exchange and Non-Exchange Revenues: In accordance with Federal Government accounting standards, the Department classifies revenues as either exchange (earned) or non-exchange. Exchange revenues are those that derive from transactions in which both the Government and the other party receive value (see Note 18). Non-exchange revenues derive from the Government's sovereign right to demand payment, including fines and penalties. These revenues are not considered to reduce the cost of the Department's operations and are reported on the Consolidated Statements of Changes in Net Position.

Imputed Financing Sources: In certain instances program costs of the Department are paid out of funds appropriated to other Federal agencies. For example, certain costs of retirement programs are paid by the Office of Personnel Management, and certain legal judgments against the Department are paid from the Judgment Fund maintained by Treasury. When costs that are directly attributable to the Department's operations are paid by other agencies, the Department recognizes these amounts on the Consolidated Statements of Net Cost. In addition, these amounts are recognized as imputed financing sources on the Consolidated Statements of Changes in Net Position and the Consolidated Statements of Financing.

Custodial Revenues: The Department collects certain revenues on behalf of others which are designated as custodial revenues. The Department incurs virtually no costs to generate these revenues, nor can it use these revenues to finance its operations. These revenues are returned to Treasury and others and are reported on the Consolidated Statements of Custodial Activities (see Note 25).

O. Use of Estimates

The Department has made certain estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these consolidated financial statements. Actual results could differ from these estimates.

P. Comparative Data

Certain FY 2005 amounts have been reclassified to conform to the FY 2006 presentation.

2. Non-Entity Assets

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Intragovernmental		
Fund balance with Treasury		
Naval Petroleum Reserve Deposit Fund ^(Note 13)	\$ 323	\$ 323
Elk Hills School Lands Fund ^(Note 13)	-	82
Investments - Petroleum Pricing Violation Escrow Fund ^(Notes 4 and 13)	104	280
Subtotal	\$ 427	\$ 685
Investments - Petroleum Pricing Violation Escrow Fund ^(Notes 4 and 13)	223	230
Inventories - Department of Defense stockpile oil ^(Notes 7 and 13)	106	106
Other	7	9
Total non-entity assets	\$ 763	\$ 1,030
Total entity assets	130,173	120,707
Total assets	\$ 130,936	\$ 121,737

Assets in the possession of the Department that are not available for its use are considered non-entity assets.

Naval Petroleum Reserve Deposit Fund

The balance in this fund represents proceeds from the sale of the Naval Petroleum Reserve at Elk Hills that are being held until final disposition in accordance with the Decoupling Agreement. Approximately \$288 million is being held for a contingency payment to Chevron, Inc., pending the outcome of equity finalization. The remaining \$35 million is reserved for anticipated adjustments to Occidental's final payment and for possible reimbursement to the investment banker for an advance on its commission.

Petroleum Pricing Violation Escrow Fund

The Petroleum Pricing Violation Escrow Fund represents custodial receipts collected as a result of agreements or court orders with individuals or firms that violated petroleum pricing and allocation regulations during the 1970s. These receipts are invested in Treasury securities and certificates of deposit at minority-owned financial institutions pending determination by the Department as to how to distribute the fund balance. The fund balance decreases as payments are made by the Department from this fund.

3. Fund Balance with Treasury

(in millions)

<i>June 30, 2006</i>	Appropriated Funds	Revolving Funds	Special Funds	Other Funds	Total
Unobligated budgetary resources					
Available	\$ 6,369	\$ 1,233	\$ 574	\$ -	\$ 8,176
Unavailable ^(Note 23)	33	1,414	-	-	1,447
Obligated balance not yet disbursed					
Unpaid obligations	17,156	2,192	500	3	19,851
Uncollected customer payments from Fed sources	(4,116)	(404)	(65)	-	(4,585)
Deposit fund liabilities	-	-	-	384	384
Other adjustments					
Appropriations temporarily not available pursuant to law, and contract authority	257	(1,370)	-	-	(1,113)
Unavailable receipt accounts	-	-	936	-	936
Budgetary resources invested in Treasury securities					
Nuclear Waste Fund - Earmarked	-	-	(224)	-	(224)
Uranium Enrichment D&D Fund - Earmarked	-	-	(228)	-	(228)
Pajarito Plateau Homesteaders Compensation Fund	-	-	(9)	-	(9)
U.S. Enrichment Corporation revolving fund	-	(1,414)	-	-	(1,414)
Total FY 2006 - Qtr. 3 fund balance with Treasury	\$ 19,699	\$ 1,651	\$ 1,484	\$ 387	\$ 23,221

September 30, 2005 (unaudited)

Unobligated budgetary resources					
Available	\$ 2,382	\$ 95	\$ 135	\$ -	\$ 2,612
Unavailable ^(Note 23)	240	1,388	1	-	1,629
Obligated balance not yet disbursed					
Unpaid obligations	14,762	1,954	511	5	17,232
Uncollected customer payments from Fed sources	(4,378)	(296)	(13)	-	(4,687)
Deposit fund liabilities	-	-	-	391	391
Other adjustments					
Appropriations temporarily not available pursuant to law, and contract authority	257	(1,019)	-	-	(762)
Unavailable receipt accounts	-	-	963	-	963
Budgetary resources invested in Treasury securities					
Nuclear Waste Fund	-	-	(284)	-	(284)
Uranium Enrichment D&D Fund	-	-	(68)	-	(68)
Pajarito Plateau Homesteaders Compensation Fund	-	-	(8)	-	(8)
U.S. Enrichment Corporation revolving fund	-	(1,384)	-	-	(1,384)
Total FY 2005 fund balance with Treasury	\$ 13,263	\$ 738	\$ 1,237	\$ 396	\$ 15,634

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4. Investments, Net

(in millions)

Pursuant to statutory authorizations, the Department invests monies in Treasury securities and commercial certificates of deposit that are secured by the Federal Deposit Insurance Corporation. The Department's investments primarily involve the Nuclear Waste Fund (NWF) and the Uranium Enrichment Decontamination and Decommissioning (D&D) Fund. Fees paid by owners and generators of spent nuclear fuel and

high-level radioactive waste and fees collected from domestic utilities are deposited into the respective funds. Funds in excess of those needed to pay current program costs are invested in Treasury securities.

Upon privatization of the United States Enrichment Corporation (USEC) on July 28, 1998, OMB and Treasury designated the Department as successor to USEC for purposes of disposition of balances remaining in the USEC Fund. Funds in excess of those needed to liquidate USEC liabilities are invested in Treasury securities.

	Face	Unamortized Premium (Discount)	Investments Net	Unrealized Market Gains (Losses)	Market Value
June 30, 2006					
Intragovernmental Non-Marketable					
Nuclear Waste Fund - Earmarked	\$ 35,706	\$ (18,157)	\$ 17,549	\$ 111	\$ 17,660
D&D Fund - Earmarked	4,290	89	4,379	(135)	4,244
U.S. Enrichment Corporation - Earmarked	1,414	6	1,420		1,420
Petroleum Pricing Violation Escrow Fund	104	-	104	-	104
Pajarito Plateau Homesteaders Compensation Fund	9	-	9	-	9
Subtotal	\$ 41,523	\$ (18,062)	\$ 23,461	\$ (24)	\$ 23,437
Petroleum Pricing Violation Escrow Fund	223	-	223	-	223
Total FY 2006 - Qtr. 3 investments	\$ 41,746	\$ (18,062)	\$ 23,684	\$ (24)	\$ 23,660
September 30, 2005 (unaudited)					
Intragovernmental Non-Marketable					
Nuclear Waste Fund	\$ 33,549	\$ (17,037)	\$ 16,512	\$ 2,008	\$ 18,520
D&D Fund	3,891	122	4,013	(46)	3,967
U.S. Enrichment Corporation	1,387	(3)	1,384	1	1,385
Petroleum Pricing Violation Escrow Fund	281	(1)	280	-	280
Pajarito Plateau Homesteaders Compensation Fund	8	-	8	-	8
Subtotal	\$ 39,116	\$ (16,919)	\$ 22,197	\$ 1,963	\$ 24,160
Petroleum Pricing Violation Escrow Fund	230	-	230	-	230
Total FY 2005 investments	\$ 39,346	\$ (16,919)	\$ 22,427	\$ 1,963	\$ 24,390

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5. Accounts Receivable, Net

(in millions)

	FY 2006 - Qtr. 3			FY 2005 (unaudited)		
	Receivable	Allowance	Net	Receivable	Allowance	Net
Intragovernmental	\$ 693	\$ -	\$ 693	\$ 652	\$ -	\$ 652
Nuclear Waste Fund - Earmarked	3,103	-	3,103	3,024	-	3,024
Uranium Enrichment D&D Fund - Earmarked	181	-	181	375	-	375
Power marketing administrations - Earmarked	586	(42)	544	465	(40)	425
Credit programs	51	(26)	25	54	(26)	28
Other	292	(40)	252	179	(41)	138
Subtotal	\$ 4,213	\$ (108)	\$ 4,105	\$ 4,097	\$ (107)	\$ 3,990
Total accounts receivable	\$ 4,906	\$ (108)	\$ 4,798	\$ 4,749	\$ (107)	\$ 4,642

Intragovernmental accounts receivable primarily represent amounts due from other Federal agencies for reimbursable work performed pursuant to the Economy Act, Atomic Energy Act, and other statutory authority, as well as interest earned on investments held in Treasury securities.

Non-intragovernmental receivables primarily represent amounts due for NWF and D&D Fund fees. NWF receivables are supported by contracts

and agreements with owners and generators of spent nuclear fuel and high-level radioactive waste that contribute resources to the fund. D&D Fund receivables from public utilities are supported by public law. Other receivables due from the public include reimbursable work billings and other amounts related to trade receivables, and other miscellaneous receivables.

6. Regulatory Assets

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Intragovernmental		
Appropriation refinancing asset	\$ 4,480	\$ 4,536
Non-operating regulatory assets	3,941	3,955
Investor owned utilities exchange benefits	1,296	964
Conservation and fish and wildlife assets	380	412
Other regulatory assets	205	322
Subtotal	\$ 5,822	\$ 5,653
Total regulatory assets	\$ 10,302	\$ 10,189

The Department's power marketing administrations (PMA) record certain amounts as assets in accordance with Statement of Financial Accounting Standards (SFAS) No. 71, Accounting for the Effects of Certain Types of Regulation. The provisions of SFAS No. 71 require that regulated enterprises reflect rate actions of the regulator in their financial statements, when appropriate. These rate actions can provide reasonable assurance of the existence of an asset, reduce or eliminate the value of an asset, or impose a liability on a regulated enterprise.

In order to defer incurred costs under SFAS No. 71, a regulated entity must have the statutory authority to establish rates that recover all costs. Rates so established must be charged to and collected from customers. Due to increasing competitive pressures, Bonneville Power Administration (BPA) may be required to seek alternative solutions in the future to avoid raising rates to a level that is no longer competitive. If

BPA's rates should become market-based, SFAS No. 71 would no longer be applicable, and all of the above costs deferred under that standard would be expensed.

Appropriation Refinancing Asset

The BPA Appropriations Refinancing Act of 1996, 16 U.S.C. 8381, required that historic interest rates set on the Federal Columbia River Power System (FCRPS) capital appropriations, which BPA is obligated to set rates to recover, be reset and assigned prevailing market rates and the unpaid balance as of September 30, 1996, be reduced by a matching amount. These appropriations include the unpaid balance of capital appropriations of the power generating assets of the Corps of Engineers (Corps) and the Bureau of Reclamation associated with the FCRPS. The Corps and the Bureau of Reclamation continue to own and operate these

assets, with BPA having the responsibility to recover the costs of the assets from power ratepayers. BPA established an intragovernmental regulatory asset representing the repayment amount of the transmission and power generating assets that will be recovered in BPA rates. This regulatory asset is being amortized over 68 years. BPA recognized amortization costs of \$56 million as of June 30, 2006 and \$77 million as of September 30, 2005 (unaudited). The Consolidated Balance Sheets include a regulatory asset and an offsetting related debt.

Non-Operating Regulatory Assets

BPA has acquired all or part of the potential generating capability of four terminated nuclear power plants. The Government's contracts require BPA to pay all or part of the annual projects' budgets, including debt service of the terminated plants. These projects' current and future costs are recovered through BPA's rates. The Consolidated Balance Sheets include a regulatory asset and an offsetting related debt.

Investor Owned Utilities (IOU) Exchange Benefits

The IOU Exchange Benefits consist of future payments to be made to BPA's IOUs to be passed on to the utilities' qualified small-farm and residential customers. The regulatory asset offsets the liability on the balance sheet (see Note 12) as these amounts will be collected in future rates. It is possible that the agreements for these future payments may be revised in connection with legal challenges that have been filed with the U.S. Court of Appeals for the Ninth Circuit which could result in a

remand and potential changes to the IOU Exchange Benefit amounts to be provided to the IOU customers. BPA believes it is likely that the agreements will be sustained.

Conservation and Fish and Wildlife Assets

The conservation assets consist of capitalized power resource acquisitions resulting from investment in conservation measures. The fish and wildlife assets consist of capitalized costs to fund the protection of fish and wildlife, and the mitigation of losses attributed to the development and operation of hydroelectric projects on the Columbia River and its tributaries pursuant to Section 4(h) of the Pacific Northwest Electric Power Planning and Conservation Act, 16 U.S.C. 839. BPA pays for the facilities and recovers the costs in rates but does not retain ownership of the facilities. Amortization of capitalized conservation and fish and wildlife costs is computed on a straight-line method based on estimated service lives, which are up to 20 years for conservation and 15 years for fish and wildlife.

Other Regulatory Assets

Other regulatory assets consist of settlement agreements resulting from terminated power purchase and sale contracts for which costs will be recovered in power rates; bond premiums amortized over the life of the new debt instruments; deferred contributions for under-funded post retirement benefit programs; and spacer damper replacement costs for which costs will be recovered in transmission rates.

7. Inventory, Net

Inventory includes stockpile materials consisting of crude oil held in the Strategic Petroleum Reserve and the Northeast Home Heating Oil Reserve, nuclear materials, highly enriched uranium, and other inventory consisting primarily of operating materials and supplies.

Strategic Petroleum Reserve

The Strategic Petroleum Reserve consists of crude oil stored in salt domes, terminals, and pipelines. As of June 30, 2006 and September 30, 2005 (unaudited), the Reserve contained crude oil with a historical cost of \$19,079 million and \$19,237 million, respectively. The reserve provides a deterrent to the use of oil as a political instrument and provides an effective response mechanism should a disruption occur. Oil from the reserve may be sold only with the approval of Congress and the President of the United States. Included in the Strategic Petroleum Reserve is crude oil held for future Department of Defense (DOD) use. The FY 1993 Defense Appropriations Act authorized the Department to acquire, transport, store, and prepare for ultimate drawdown of crude oil for DOD. The crude oil purchased with DOD funding is commingled with the Department's stock and is valued at its historical cost of \$106 million as of June 30, 2006 and September 30, 2005 (unaudited) (see Notes 2 and 13).

In August 2005, Hurricane Katrina hit the Gulf Coast near the Louisiana/Mississippi border. Although the Strategic Petroleum Reserve storage facilities were unaffected, its leased office facilities in the New Orleans area were evacuated and remained inactive until October 2005. Because of the disruption to crude oil supplies, the Department responded by entering into exchange agreements for the delivery of crude oil to affected companies. To further address the supply disruption, the President ordered a drawdown of the Reserve, resulting in the

competitive sale of 11 million barrels in September 2005 (unaudited). As of June 30, 2006 oil sale proceeds total \$615 million.

Northeast Home Heating Oil Reserve

The Northeast Home Heating Oil Reserve was established in FY 2000 pursuant to the Energy Policy and Conservation Act. As of June 30, 2006 and September 30, 2005 (unaudited), the reserve contained petroleum distillate in the New England, New York, and New Jersey geographic area valued at its historical cost of \$77 million.

Nuclear Materials

Nuclear materials include weapons and related components, including those in the custody of the Department of Defense under Presidential Directive, and materials used for research and development purposes. Certain surplus plutonium carried at zero value (a provision for disposal is included in environmental cleanup and disposal liabilities) has significant arms control and nonproliferation value and is instrumental to the U.S. in ensuring that Russia continues toward the disposition of its weapons grade plutonium.

The Office of Nuclear Energy, Science and Technology has inventories amounting to a total of 18,850 metric tons of uranium hexafluoride. This total is segmented into three separate stockpiles. First, the Department in 1996 received from USEC a transfer of 5,521 metric tons of uranium associated with the natural uranium component of low-enriched uranium delivered under the U.S. and Russia HEU Agreement in 1995 and 1996. Only 2,388 metric tons remain in the Department's inventories because 2,228 metric tons were transferred consistent with section 3112 of the USEC Privatization Act between 1996 and 2001, and 905 (unaudited) metric tons were transferred to USEC for sale in FY 2005.

The second stockpile of uranium, amounting to 11,000 metric tons, was purchased from Russia for \$325 million consistent with P.L. 105-277. This material is the natural uranium component of low enriched uranium delivered under the U.S. and Russia HEU Agreement in 1997 and 1998. Final disposition of the material will not occur until after 2009 based upon an international agreement between the U.S. and Russia that requires the Department to maintain a 22,000 metric ton stockpile, and restricts the entry of the uranium into the commercial market until 2009. The remaining uranium inventory stockpile of 5,462 (unaudited) metric tons is also restricted from sale into the commercial market until 2009. Sampling and analysis indicates that a portion of the Department's stockpile of uranium hexafluoride may have technetium exceeding nuclear fuel specifications. Based on current market data, the carrying value of this material is not impaired as of September 30, 2005 (unaudited).

The nuclear materials inventory includes numerous items for which future use and disposition decisions have not been made. Decisions for most of these items will be made through analysis of the economic benefits and costs, and the environmental impacts of the various use and disposition alternatives. The carrying value of these items is not significant to the nuclear materials stockpile inventory balance. The Department will recognize disposition liabilities and record the material at net realizable value when disposal as waste is identified as the most

likely alternative and disposition costs can be reasonably estimated. Inventory values are reduced by costs associated with decay or damage.

Highly Enriched Uranium

The Nuclear Weapons Council declared in December 1994, leading to the Secretary of Energy's announcement in February 1996, that 174.3 metric tons of the Department's highly enriched uranium (HEU) was excess to national security needs. Most of this material will be blended for sale as low-enriched uranium (LEU) and used over time as commercial nuclear reactor fuel to recover its value. The remaining portion of the material is already in the form of irradiated fuel or other waste forms, which require no processing prior to disposal. A provision for disposal of irradiated fuel is included in environmental liabilities. The carrying value of HEU for which the LEU blending product will have levels of contamination exceeding nuclear fuel specifications has been reduced to zero. A disposition liability for the estimated costs to process this "off-spec" material is included in environmental cleanup and disposal liabilities. Most of the off-spec material will be blended to LEU for use in Tennessee Valley Authority nuclear power reactors. Estimates of revenues and processing costs for surplus HEU were updated during FY 2005 (unaudited). Net revenues from sales of the remaining surplus HEU are expected to exceed the carrying value of the surplus HEU.

8. General Property, Plant and Equipment, Net

(in millions)

	FY 2006 Qtr 3.			FY 2005 (unaudited)		
	Acquisition Costs	Accumulated Depreciation	Net Book Value	Acquisition Costs	Accumulated Depreciation	Net Book Value
Land and land rights	\$ 1,594	\$ (793)	\$ 801	\$ 1,506	\$ (729)	\$ 777
Structures and facilities	33,647	(22,356)	11,291	33,543	(21,937)	11,606
Internal use software	383	(189)	194	419	(149)	270
Equipment	15,558	(10,410)	5,148	15,203	(10,322)	4,881
Natural resources	65	(9)	56	65	(9)	56
Construction work in process	6,421	-	6,421	5,600	-	5,600
Total property, plant and equipment	\$ 57,668	\$ (33,757)	\$ 23,911	\$ 56,336	\$ (33,146)	\$ 23,190

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9. Other Non-Intragovernmental Assets

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Purchased generating capability	\$ 2,402	\$ 2,389
Prepaid pension plan costs ^(Note 15)	1,063	1,260
Oil due from others	83	224
Prepayments	25	321
Other	557	397
Total other non-intragovernmental assets	\$ 4,130	\$ 4,591

Purchased Generating Capability

Through contracts, BPA has acquired all or part of the generating capability of a nuclear power plant and several hydroelectric projects. The contracts require BPA to pay operating expenses and debt service for these facilities. The Consolidated Balance Sheets include an offsetting related debt for these amounts.

Oil Due from Others

The Department has a Royalty-In-Kind exchange arrangement with the Department of the Interior's Mineral Management Service (MMS) to receive crude oil from Gulf of Mexico Federal offshore leases. The oil from the MMS offshore leases was exchanged for other crude oil (exchange oil) of

differing quality to be delivered to the Strategic Petroleum Reserve. As a result of companies deferring the delivery of some of the exchange oil, the Department earned additional oil as a premium. All Royalty-In-Kind exchange oil was received as of September 30, 2005 (unaudited).

Due to Hurricane Katrina, the Strategic Petroleum Reserve, contracted with six oil companies to loan oil in exchange for the return of contracted plus premium barrels related to the exchange. As of June 30, 2006, the majority of the oil, due to the SPR, valued at \$262 million has been returned. In June 2006, the SPR delivered 750,000 barrels of oil in exchange for 770,250 barrels to be returned to the reserve by October 2006. As of June 30, 2006, the value of the oil to be received in this exchange is \$20.5 million.

10. Liabilities Not Covered by Budgetary Resources

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Intragovernmental		
Debt ^(Note 11)	\$ 10,187	\$ 9,958
Other	17	15
Total intragovernmental	\$ 10,204	\$ 9,973
Debt ^(Note 11)	6,606	6,574
Deferred revenues ^(Note 12)		
Nuclear Waste Fund - Earmarked	20,680	19,564
Environmental liabilities ^(Note 14)	210,523	187,784
Pension and other actuarial liabilities ^(Note 15)	12,394	11,727
Other liabilities		
Environment, safety and health compliance activities ^(Note 13)	893	1,164
Accrued annual leave for Federal employees	125	113
Other	348	350
Contingencies and Commitments ^(Note 16)	7,028	5,058
Total liabilities not covered by budgetary resources	\$ 268,801	\$ 242,307
Total liabilities covered by budgetary resources	11,017	10,209
Total liabilities	\$ 279,818	\$ 252,516

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11. Debt

(in millions)

	FY 2006 - Qtr. 3			FY 2005 (unaudited)		
	Beginning Balance	Net Borrowings	Ending Balance	Beginning Balance	Net Borrowings	Ending Balance
Intragovernmental						
Borrowing from Treasury	\$ 2,777	\$ (70)	\$ 2,707	\$ 2,900	\$ (123)	\$ 2,777
Appropriated capital	2,972	347	3,319	3,111	(139)	2,972
Refinanced appropriations	2,219		2,219	2,401	(182)	2,219
Capitalization adjustment	1,990	(48)	1,942	2,056	(66)	1,990
Subtotal	\$ 9,958	\$ 229	\$ 10,187	\$ 10,468	\$ (510)	\$ 9,958
Non-Federal projects	6,574	32	6,606	6,531	43	6,574
Total debt	\$ 16,532	\$ 261	\$ 16,793	\$ 16,999	\$ (467)	\$ 16,532

Borrowing from Treasury

To finance its capital programs, BPA is authorized by Congress to issue to Treasury up to \$4,450 million of interestbearing debt with terms and conditions comparable to debt issued by U.S. Government corporations. A portion (\$1,250 million) is reserved for conservation and renewable resource loans and grants. As of June 30, 2006, of the total \$2,707 million of outstanding debt, \$760 million represented conservation and renewable resource loans and grants (including Corps, Bureau of Reclamation and U.S. Fish and Wildlife capital investments). The weighted average interest rates for Treasury borrowings as of June 30, 2006 and September 30, 2005 (unaudited), were 4.88 percent and 4.76 percent, respectively. The fair value of BPA's long-term debt, based on discounting future cash flows using rates offered by Treasury as of September 30, 2005 (unaudited), for similar maturities, exceeds carrying value by approximately \$169 million as of September 30, 2005 (unaudited). BPA's policy is to refinance debt that is callable when associated benefits exceed costs of refinancing.

Appropriated Capital

Appropriated capital owed represents the balance of appropriations provided to the Department's power marketing administrations for construction and operation of power projects which will be repaid to Treasury's General Fund and the Department of the Interior's (Interior) Reclamation Fund. The amount owed also includes accumulated interest on the net unpaid Federal investment in the power projects. The Federal investment in these facilities is to be repaid within 50 years from the time the facilities are placed in service or are commercially operational. Replacements of Federal investments are generally to be repaid over their expected useful service lives. There is no requirement for repayment of a specific amount of Federal investment on an annual basis.

Each of the power marketing administrations, except BPA, receives an annual appropriation to fund operation and maintenance expenses. These appropriated funds are repaid to the General Fund of the Treasury and Interior from the revenues generated from the sale of power and transmission services. To the extent that funds are not available for payment, such unpaid annual net deficits become payable from the subsequent years' revenues prior to any repayment of Federal investment. The Department treats these appropriations as a borrowing from the General Fund of the Treasury and Interior, and as such, the Consolidated

Statements of Changes in Net Position do not reflect these funds as appropriated capital used.

Except for the appropriation refinancing asset described in Note 6 and in the next paragraph, the Department's financial statements do not reflect the Federal investment in power generating facilities owned by the Department of Defense, Army Corps of Engineers; the Department of the Interior, Bureau of Reclamation; and the Department of State, International Boundary and Water Commission. The Department's power marketing administrations are responsible for collecting, and remitting to Treasury, revenues resulting from the sale of hydroelectric power generated by these facilities (see Note 25).

Refinanced Appropriations

As discussed in Note 6, BPA refinanced its unpaid capital appropriations as of September 30, 1996. The weighted average interest rate on outstanding appropriations was 6.7 percent as of June 30, 2006 and September 30, 2005 (unaudited). The remaining period of repayment on refinanced appropriations is 31 years. Repayment amounts were determined based on the date the respective facilities were placed in service using the weighted average service lives of the associated investments, not to exceed 50 years. BPA repays amounts owed to the General Fund of the Treasury and Interior's Reclamation Fund.

Capitalization Adjustment

The amount of appropriations refinanced as a result of the BPA Appropriations Refinancing Act of 1996 was \$6.6 billion. After refinancing, the appropriations outstanding were \$4.1 billion. The difference between the appropriated debt before and after the refinancing was recorded as a capitalization adjustment. This adjustment is being amortized over 40 years of which 31 years remain. Amortization of the capitalization adjustment was \$48 million as of June 30, 2006 and \$66 million as of September 30, 2005 (unaudited). The weighted average interest rate was 6.7 percent as of June 30, 2006 and September 30, 2005 (unaudited).

Non-Federal Projects

As discussed in Notes 6 and 9, the non-Federal projects debt represents BPA's liability to pay all or part of the annual budgets, including debt service, of the generating capability of five operating and nonoperating nuclear power plants as well as several hydroelectric projects.

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The following table summarizes future principal payments required for the debt described above (unaudited):

Fiscal Year	Borrowing from Treasury	Appropriated Capital	Refinanced Appropriations	Capitalization Adjustment	(in millions)	
					Non-Federal Projects	
2007	\$ 556	\$ 10	\$ 24	\$ 65	\$ 231	
2008	480	21	11	65	290	
2009	310	21	10	65	282	
2010	90	13	26	65	288	
2011	115	75	21	65	285	
2012+	1,156	3,179	2,127	1,617	5,230	
Total	\$ 2,707	\$ 3,319	\$ 2,219	\$ 1,942	\$ 6,606	

12. Deferred Revenues and Other Credits

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Intragovernmental	\$ 99	\$ 125
Nuclear Waste Fund - Earmarked ^(Note 10)	\$ 20,680	\$ 19,564
Power marketing administrations - Earmarked	2,285	1,812
Reimbursable work advances	232	168
Other	42	48
Subtotal	\$ 23,239	\$ 21,592
Total deferred revenues and other credits	\$ 23,338	\$ 21,717

Nuclear Waste Fund

NWF revenues are accrued based on fees assessed against owners and generators of high-level radioactive waste and spent nuclear fuel and interest accrued on investments in Treasury securities. These revenues are recognized as a financing source as costs are incurred for NWF activities. Annual adjustments are made to defer revenues that exceed the NWF expenses.

Power Marketing Administrations

The power marketing administrations' deferred revenues primarily represent amounts paid to BPA from participants under various

alternating current intertie capacity agreements, various customer reimbursable projects and generator funds held as security for network upgrades and interconnection which will be returned as credits against future transmission service and load diversification fees paid to BPA by various customers. These one-time payments cover the remaining term of the customer's existing contractual agreement and are recognized as revenues as contract commitments are satisfied except for the generator funds which will be returned as credits against future transmission services. Also included in Deferred Revenues and Other Credits is BPA's offset to IOU Exchange Benefits (see Note 6).

13. Other Non-Intragovernmental Liabilities

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Intragovernmental		
Oil held for Department of Defense ^(Notes 2 and 7)	\$ 106	\$ 106
Other	143	63
Total other intragovernmental liabilities	\$ 249	\$ 169
Environment, safety and health compliance activities ^(Notes 10 and 24)	\$ 893	\$ 1,164
Accrued payroll and benefits	1,079	923
Petroleum Pricing Violation Escrow Fund ^(Note 2)	327	510
Naval Petroleum Reserve Deposit Fund ^(Note 2)	323	323
Elk Hills School Lands Fund ^(Note 2)	-	82
Other	650	662
Subtotal	\$ 3,272	\$ 3,664
Total other liabilities	\$ 3,521	\$ 3,833

Environment, Safety and Health Compliance Activities

The Department's environment, safety, and health liability represents those activities necessary to bring facilities and operations into compliance with existing environmental safety and health (ES&H) laws and regulations (e.g., Occupational Safety and Health Act; Clean Air Act; Safe Drinking Water Act). Types of activities included in the estimate relate to the following: upgrading site-wide fire and radiological programs; nuclear safety upgrades; industrial hygiene and industrial safety; safety related maintenance; emergency preparedness programs; life safety code improvements; and transportation of radioactive and hazardous materials. The estimate covers corrective actions expected to be performed in future years for programs outside the purview of the Department's Environmental Management (EM) Program. ES&H activities within the purview of the EM program are included in the environmental

liability estimate. The June 30, 2006 change in the ES&H liability is due to (1) additional corrective actions, activities, or programs that are required to improve the facilities' state of compliance and move them toward full compliance, or conformance with all applicable ES&H laws, regulations, agreements, and the Department's orders; (2) revised cost estimates for existing ES&H activities; and (3) costs of work performed during the year.

Accrued Payroll and Benefits

Accrued payroll and benefits represent amounts owed to the Department's Federal and contractor employees.

Other Liabilities

This balance consists primarily of liabilities associated with other deposit funds, suspense accounts, receipts due to Treasury, and contract advances.

14. Environmental Cleanup and Disposal Liabilities

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Environmental Management Program	\$ 142,935	\$ 121,411
Legacy environmental liabilities - other	17,410	17,465
Total legacy environmental liabilities	\$ 160,345	\$ 138,876
Active and surplus facilities	28,443	25,972
High-level waste and spent nuclear fuel disposition	15,234	15,059
Other	10,060	9,803
Total environmental cleanup and disposal liabilities	\$ 214,082	\$ 189,710
Amount funded by current appropriations	(3,559)	(1,926)
Total unfunded environmental cleanup and disposal liabilities	\$ 210,523	\$ 187,784
<i>Changes in environmental cleanup and disposal liabilities</i>		
Total environmental cleanup and disposal liabilities, beginning balance	\$ 189,711	\$ 181,742
Changes to environmental cleanup and disposal liability estimates		
Legacy environmental liabilities	26,324	11,757
Active and surplus facilities	2,515	280
High-level waste and spent nuclear fuel disposition	409	380
Other	426	4,102
Total changes in estimates ^(Notes 21 and 24)	\$ 29,674	\$ 16,519
Costs applied to reduction of legacy environmental liabilities ^(Note 20)	(4,361)	(6,637)
Capital expenditures related to remediation activities	(942)	(1,914)
Total environmental cleanup and disposal liabilities	\$ 214,082	\$ 189,710

During World War II and the Cold War, the United States developed a massive industrial complex to research, produce, and test nuclear weapons. The nuclear weapons complex included nuclear reactors, chemical processing buildings, metal machining plants, laboratories, and maintenance facilities that manufactured tens of thousands of nuclear warheads and conducted more than one thousand nuclear explosion tests.

At all sites where these activities took place, some environmental contamination occurred. This contamination was caused by the production, storage, and use of radioactive materials and hazardous chemicals, which resulted in contamination of soil, surface water, and groundwater. The environmental legacy of nuclear weapons production also includes thousands of contaminated buildings and large volumes of waste and special nuclear materials requiring treatment, stabilization, and disposal. Approximately one-half million cubic meters of radioactive high-level, mixed, and low-level wastes must be stabilized, safeguarded, and dispositioned, including a quantity of plutonium sufficient to fabricate thousands of nuclear weapons.

Assumptions and Uncertainties

Estimating the Department's environmental cleanup liability requires making assumptions about future activities and is inherently uncertain. The future course of the Department's environmental management program will depend on a number of fundamental technical and policy choices, many of which have not been made. The cost and environmental implications of alternative choices can be profound. For example, many contaminated sites and facilities could be restored to a condition suitable for any desired use; they could also be restored to a point where they pose

no near-term health risks to surrounding communities but are essentially surrounded by fences and left in place. Achieving the former conditions would have a higher cost but may, or may not, warrant the costs and potential ecosystem disruption, or be legally required. The baseline estimates reflect applicable local decisions and expectations as to the extent of cleanup and site and facility reuse, which include consideration of Congressional mandates, regulatory direction, and stakeholder input.

The environmental liability estimates are dependent on annual funding levels and achievement of work as scheduled. Higher funding tends to accelerate cleanup work and reduce cleanup costs; lower funding tends to delay work and increase costs. Congressional appropriations at lower than anticipated levels or unplanned delays in project completion would cause increases in life-cycle costs. The environmental liability estimates include contingency estimates intended to account for the uncertainties associated with the technical cleanup scope of the program.

The liabilities as of June 30, 2006 and September 30, 2005 (unaudited), are stated in FY 2006 dollars and FY 2005 dollars, respectively, as required by generally accepted accounting standards for Federal entities. Future inflation could cause actual costs to be substantially higher than the recorded liability.

In July 2004, the U.S. Court of Appeals in Washington, D.C. vacated a standard promulgated by the Environmental Protection Agency for the protection of the environment from offsite releases of radioactive material from the Yucca Mountain repository. The EPA standard required the Department to limit offsite releases from the repository for

10,000 years. The Court held that EPA violated the Energy Policy Act of 1992, which required the agency to issue standards for Yucca Mountain based upon and consistent with findings by the National Academy of Sciences, whose report issued in 1995 stated that the radiation hazard from the repository might continue for a much longer period. EPA issued a revised standard for comment in August 2005, and in September 2005 the Nuclear Regulatory Commission issued a draft rule that incorporates the revised EPA standard. The ability of the repository to mitigate radiation hazards is one of the criteria that the NRC will consider in its evaluation of a license application for the repository. Challenges to the revised standard could delay the Department's filing of a repository license application and, consequently, delay the opening of the repository.

Components of the Liability

Environmental Management Program (EM) Estimates

EM is responsible for managing the legacy of contamination from the nuclear weapons complex. As such, EM manages thousands of contaminated facilities formerly used in the nuclear weapons program, oversees the safe management of vast quantities of radioactive waste and nuclear materials, and is responsible for the cleanup of large volumes of contaminated soil and water. The FY 2006 EM life-cycle cost estimate reflects a strategic vision to complete this cleanup mission. This strategy provides for a site-by-site projection of the work required to complete all EM projects, while complying with regulatory agreements, statutes, and regulations. Each project baseline estimate includes detailed projections of the technical scope, schedule, and costs at each site for the cleanup of contaminated soil, groundwater, and facilities; treating, storing, and disposing of wastes; and managing nuclear materials. The baseline estimates also include costs for related activities such as landlord responsibilities, program management, and legally prescribed grants and cooperative agreements for participation and oversight by native American tribes, regulatory agencies, and other stakeholders.

Over the past several years a number of management reforms have been implemented within the EM program. These reforms include: 1) redefining and aligning acquisition strategies, 2) instituting robust project management practices and procedures in executing the cleanup program, and 3) implementing a strict configuration control system for key management parameters of the cleanup program. In FY 2006, progress towards improving efficiency and management of the program continued. Field offices have prepared technical baselines that describe in detail the activities, schedule, and resources required to complete the EM cleanup mission at the respective sites. In addition, EM has implemented an earned value management reporting system to ascertain whether cleanup progress remains on schedule and within budget. Achievement of accelerated cleanup goals is largely contingent upon receipt of funding, yet to be approved by Congress, during FY 2007 and succeeding years. In addition to the assumptions and uncertainties discussed above, the following key assumptions and uncertainties relate to the EM baseline estimates:

- The Department has identified approximately 10,400 potential release sites from which contaminants could migrate into the environment. Although virtually all of these sites have been at least partially characterized, final remedial action and regulatory decisions have not been made for many sites. Site-specific assumptions regarding the amount and type of contamination and the remediation technologies that will be utilized were used in estimating the environmental liability related to these sites.

- Cost estimates for management of the Department's high-level waste are predicated upon assumptions as to the timing and rate of acceptance of the waste by the first geological repository. Delays in opening the repository could cause EM project costs to increase.
- Estimates are based on remedies considered technically and environmentally reasonable and achievable by local project managers and appropriate regulatory authorities.
- Estimated cleanup costs at sites for which there is no current feasible remediation approach are excluded from the baseline estimates, although applicable stewardship and monitoring costs for these sites are included. The cost estimate would be higher if some remediation were assumed for these areas. However, because the Department has not identified effective remedial technologies for these sites, no basis for estimating costs is available. An example of a site for which cleanup costs are excluded is the nuclear explosion test area at the Nevada Test Site.
- The Low-Level Radioactive Waste Policy Amendments Act of 1985 assigned responsibility to the Department for the disposal of certain low-level wastes, generated by the Department and others, that are not suitable for near-surface disposal. The Department has not determined a disposal path and has therefore included only storage and monitoring costs for these wastes in the liability. The disposal costs for these wastes are not expected to be material in relation to the Department's environmental liabilities.

Changes to the EM baseline estimates during FY 2006 and FY 2005 (unaudited) resulted from inflation adjustments to reflect constant dollars for the current year; improved and updated estimates for the same scope of work; revisions in acquisition strategies, technical approach or scope; regulatory changes; cleanup activities performed; additional scope and transfers out of the EM baseline estimates; and additions for facilities transferred from the active and surplus category discussed below.

Legacy Environmental Liabilities – Other

These liabilities are comprised of the estimated cleanup and post-closure responsibilities, including surveillance and monitoring activities, soil and groundwater remediation, and disposition of excess materials for sites after the EM program activities have been completed. The costs for these post-closure activities are estimated for a period of 75 years after the balance sheet date, i.e., through 2081 in FY2006 and through 2080 in FY 2005 (unaudited). Some postcleanup monitoring and other long-term stewardship activities are expected to continue beyond 2081, but the Department believes the costs of these activities cannot reasonably be estimated.

Active and Surplus Facilities

This liability includes anticipated remediation costs for active and surplus facilities managed by the Department's ongoing program operations and which will ultimately require stabilization, deactivation, and decommissioning. The estimate is largely based upon a cost-estimating model which extrapolates stabilization, deactivation, and decommissioning costs from facilities included in the EM baseline estimates to those active and surplus facilities with similar characteristics. Site-specific estimates are used when available. Cost estimates for active and surplus facilities are updated each year to reflect current year constant dollars; the transfer of cleanup and management responsibilities for these facilities by other programs to EM, as discussed above; changes in facility size or

contamination assessments; and estimated cleanup costs for newly contaminated facilities. For facilities newly contaminated since FY 1997, cleanup costs allocated to future periods and not included in the liability amounted to \$498 million at June 2006 and \$440 million at September 30, 2005 (unaudited).

High-Level Waste and Spent Nuclear Fuel Disposition

The Nuclear Waste Policy Act of 1982 established the Department's responsibility to provide for permanent disposal of the Nation's high-level radioactive waste and spent nuclear fuel. The Act requires all owners and generators of high-level nuclear waste and spent nuclear fuel, including the Department, to pay their respective shares of the full cost of the program. To that end, the Act establishes a fee on owners and generators that the Department must collect and annually assess to determine its adequacy. The Department's liability reflects its share of the estimated future costs of the program based on its inventory of high-level waste and spent nuclear fuel, plus the unfunded portion of actual costs incurred to

date and the accrued interest on the unfunded costs. The Department's liability does not include the portion of the cost attributable to other owners and generators.

Changes to the high-level waste and spent nuclear fuel disposition liability during FY 2006 and FY 2005 (unaudited) resulted from inflation adjustments to reflect current year constant dollars, revisions in technical approach or scope, changes in the Department's allocable percentage share of future costs, and actual costs incurred by the Department that were allocated to the Department's share of the liability.

Other Environmental Liabilities

Other environmental liabilities consist of liabilities for disposition of surplus plutonium, depleted uranium, and highly enriched uranium. The liability for disposition of surplus plutonium was increased in FY 2005 (unaudited) due to program delays imposed by running the program in parallel with the Russian program (see Note 7) and facility redesign.

15. Pension and Other Actuarial Liabilities

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Contractor pension plans	\$ 2,758	\$ 2,563
Contractor postretirement benefits other than pensions	9,513	9,041
Contractor disability and life insurance plans	24	24
Federal Employees' Compensation Act	99	99
Total pension and other actuarial liabilities	\$ 12,394	\$ 11,727

Most of the Department's contractors have defined benefit pension plans under which they promise to pay specified benefits to their employees, such as a percentage of the final average pay for each year of service. The Department's cost under the contracts includes reimbursement of annual contractor contributions to these pension plans. The Department's contractors also sponsor postretirement benefits other than pensions (PRB) consisting of predominantly postretirement health care benefits. The Department approves the contractors' pension and postretirement benefit plans and is ultimately responsible for the allowable costs of funding the plans.

The Department reimburses its major contractors for employee disability insurance plans, and estimates are recorded as unfunded liabilities for these plans.

Contractor Pension Plans

The Department follows SFAS No. 87, Employers' Accounting for Pensions, for contractor employees for whom the Department has a continuing pension obligation. As of June 30, 2006, the Department has prepaid pension costs of \$1,198 million before minimum liability adjustment and \$1,056 million after minimum liability adjustment; and accrued pension costs of \$1,352 million before minimum liability adjustment and \$2,758 million after minimum liability adjustment. The Department has a continuing obligation for a variety of contractor-sponsored pension plans (39 qualified and 6 nonqualified). In this regard, benefit formulas consist

of final average pay (30 plans), career average pay (8 plans), dollar per month of service (6 plans), and one defined contribution plan with future contributions for retired employees. Sixteen of the plans cover nonunion employees only; 9 cover union employees only; and 20 cover both union and nonunion employees.

For qualified plans, the Department's current funding policy is for contributions made to a trust during a plan year for a separate defined benefit pension plan to not exceed the greater of: (1) the minimum contribution required by Section 302 of the Employee Retirement Income Security Act (ERISA) or (2) the amount estimated to eliminate the unfunded current liability as projected to the end of the plan year. The term "unfunded current liability" refers to the unfunded current liability as defined in Section 302(d)(8) of ERISA. For nonqualified plans, the funding policy is pay-as-you-go.

Plan assets generally include cash and equivalents, stocks, corporate bonds, government bonds, real estate, venture capital, international investments, and insurance contracts. There are three plans that have securities of the employer or related parties included in the plan assets.

Assumptions and Methods - In order to provide consistency among the Department's various contractors, certain standardized actuarial assumptions were used. These standardized assumptions include the discount rates, mortality assumptions, and an expected long-term rate of return on plan assets, salary scale, and any other economic

assumption consistent with an expected long-term inflation rate of 3.0 percent for the entire U.S. economy with adjustments to reflect regional or industry rates as appropriate. In most cases, ERISA valuation actuarial assumptions for demographic assumptions were used.

The following specific assumptions and methods were used to determine the net periodic pension cost. The weighted average discount rate was 5.25 percent as of June 30, 2006 and 5.75 percent as of September 30, 2005 (unaudited); the average long-term rate of return on assets was 7.88 percent as of June 30, 2006 and September 30, 2005 (unaudited); and the average rate of compensation increase was 4.4 percent as of June 30, 2006 and September 30, 2005 (unaudited). The average long-term rate of return on assets shown above is the average rate for all of the contractor plans. Each contractor develops its own average long-term rate of return on assets based on the specific investment profile of the specific plans it sponsors. Therefore, there is no one overall approach to setting the rate of return for all of the contractors' plans.

The weighted average discount rates used to determine the benefit obligations as of June 30, 2006 and September 30, 2005 (unaudited) was 5.25 percent. (No re-measurement was done for June 30, 2006.)

Straight line amortization of unrecognized prior service cost over the average remaining years of service of the active plan participants and the minimum amortization of unrecognized gains and losses were used. The transition obligation was amortized over the greater of 15 years or the average remaining service.

Contractor Postretirement Benefits Other Than Pensions

The Department follows SFAS No. 106, Employers' Accounting for Postretirement Benefits Other Than Pensions, for contractor employees for whom the Department has a continuing obligation. SFAS No. 106 requires that the cost of PRB be accrued during the years that the employees render service. As of June 30, 2006 and September 30, 2005 (unaudited), the measurement dates, the Department has an accrued PRB liability of \$9,513 million and \$9,041 million, respectively. Generally, the PRB plans are unfunded, and the Department's funding policy is to fund on a pay-as-you-go basis. There are six contractors, however, that are prefunding benefits in part as permitted by law. The Department's contractors sponsor a variety of postretirement benefits other than pensions. Benefits consist of medical (39 contractors), dental (19 contractors), life insurance (22 contractors), and Medicare Part B premium reimbursement (4 contractors). Thirty-eight of the contractors sponsor a traditional indemnity plan, a PPO, an HMO, or similar plan. Seventeen of these also have a point of service plan, an HMO, or similar plan. One additional contractor has only a point of service plan, an HMO, or similar plan.

Assumptions and Methods - In order to provide consistency among the Department's various contractors, certain standardized actuarial assumptions were used. These standardized assumptions include medical and dental trend rates, discount rates, and mortality assumptions.

The following specific assumptions and methods were used in determining the PRB estimates. The medical trend rates for a point of service plan, an HMO, a PPO, or similar plan, grade from 10.0 percent in 2005 (unaudited) down to 5.5 percent in 2013 and later. The medical trend rates for a traditional indemnity plan, or similar plan, grade from 11.0 percent in 2005 (unaudited) down to 5.5 percent in 2013 and later. The dental trend rates at all ages grade down from 7.0 percent in 2005 (unaudited) to 5.0 percent in 2013 and later.

The weighted average discount rates of 5.25 percent as of June 30, 2006 and 5.75 percent as of September 30, 2005 (unaudited) and the average long-term rate of return on assets of 6.58 percent as of June 30, 2006 and September 30, 2005 (unaudited) were used to determine the net periodic postretirement benefit cost. The rate of compensation increase was the same rate as each contractor used to determine pension contributions. The average long-term rate of return on assets shown above is the average rate for all of the contractor plans. Each contractor develops its own average long-term rate of return on assets based on the specific investment profile of the specific plans it sponsors. Therefore, there is no one overall approach to setting the rate of return for all of the contractors' plans.

The weighted average discount rates used to determine the benefit obligation as of June 30, 2006 and September 30, 2005 (unaudited) was 5.25 percent. (No re-measurement was done for June 30, 2006.)

Straight line amortization of unrecognized prior service cost over the average remaining years of service to full eligibility for benefits of the active plan participants and the minimum amortization of unrecognized gains and losses were used. The Department chose immediate recognition of the transition obligation existing at the beginning of FY 1994.

On December 8, 2003, the President signed into law the Medicare Prescription Drug, Improvement and Modernization Act of 2003. The law provides for a Federal subsidy to sponsors of retiree healthcare benefit plans that provide a benefit at least actuarially equivalent to the benefit established by the law. On January 21, 2005, the Centers for Medicare and Medicaid Services (CMS) issued final regulations implementing the requirements of Act. There are currently 28 contractors that have concluded that their plans are at least actuarially equivalent. There are 6 plans that do not benefit retirees over 65 and 4 plans have determined they are not actuarially equivalent. These ten plans have not reflected any change due to the Act. One plan is unable at this time to determine the effect of the Act.

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(in millions)	Pension Benefits		Other Postretirement Benefits	
	FY 2006 - Qtr. 3	FY 2005 (unaudited)	FY 2006 - Qtr. 3	FY 2005 (unaudited)
<i>Reconciliation of funded status</i>				
Accumulated benefit obligation	\$ 25,451	\$ 24,656		
Effect of future compensation increases	4,214	4,054		
Benefit obligation	\$ 29,665	\$ 28,710	\$ 11,996	\$ 11,591
Plan assets	23,796	22,990	152	157
Funded status	\$ (5,869)	\$ (5,720)	\$ (11,844)	\$ (11,434)
Unrecognized net (asset)/obligation at transition	(532)	(626)		
Unrecognized prior service cost	849	938	(242)	(290)
Unrecognized actuarial loss	5,398	5,646	2,580	2,689
Net amount recognized	\$ (154)	\$ 238	\$ (9,506)	\$ (9,035)
Minimum liability adjustment	(1,548)	(1,547)	-	-
Prepaid/(accrued) benefit cost after minimum liability	\$ (1,702)	\$ (1,309)	\$ (9,506)	\$ (9,035)
Total prepaid benefit cost after minimum liability	1,056	1,254	7	6
Total (accrued) benefit cost after minimum liability	\$ (2,758)	\$ (2,563)	\$ (9,513)	\$ (9,041)
<i>Components of net periodic costs</i>				
Service costs	\$ 677	\$ 803	\$ 218	\$ 255
Interest costs	1,109	1,447	449	580
Expected return on plan assets	(1,298)	(1,625)	(8)	(11)
Net amortization	243	235	62	39
Impact of curtailment or special termination benefits	-	26	-	17
Total net periodic costs	\$ 731	\$ 886	\$ 721	\$ 880
<i>Contributions and benefit payments</i>				
Employer contributions	\$ 338	\$ 271	\$ 250	\$ 306
Participant contributions	2	3	54	64
Benefit payments	833	1,069	317 *	383

* Includes \$13 million paid from plan assets as of June 30, 2006 and FY 2005 (unaudited).

16. Contingencies and Commitments

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Spent nuclear fuel litigation	\$ 7,000	\$ 5,000
Other	28	58
Total contingencies and commitments	\$ 7,028	\$ 5,058

The Department is a party in various administrative proceedings, legal actions, and tort claims which may ultimately result in settlements or decisions adverse to the Federal Government. The Department has accrued contingent liabilities where losses are determined to be probable and the amounts can be estimated. Other significant contingencies exist where a loss is reasonably possible or where a loss is probable and an estimate cannot be determined. In some cases, a portion of any loss that may occur may be paid from Treasury's Judgment Fund (Judgment Fund). The Judgment Fund is a permanent, indefinite appropriation available to pay judgments against the Government for which the Department, unless required by law, is not required to reimburse from its appropriated funds. The following are significant contingencies:

- **Spent Nuclear Fuel Litigation** - In accordance with the Nuclear Waste Policy Act of 1982 (NWPAA), the Department entered into contracts with more than 45 utilities in which, in return for payment of fees into the Nuclear Waste Fund, the Department agreed to begin disposal of spent nuclear fuel (SNF) by January 31, 1998. Because the Department has no facility available to receive SNF under the NWPAA, the Department has been unable to begin disposal of the utilities' SNF as required by the contracts. Significant litigation claiming damages for partial breach of contract has ensued as a result of this delay.

To date, six suits have been settled involving utilities that collectively produce more than one-fifth of the nuclear-generated electricity in the United States. Under the terms of the settlement, the Treasury's Judgment Fund paid \$150 million to the settling utilities for delay damages they have incurred through 2005 and will make annual payments to them for future costs as they are incurred. In addition, two cases have been tried and judgments entered. One case that was affirmed on appeal sustained the trial court's finding in which the utility was awarded no damages based on the trial court's finding that the utility had incurred no compensable costs as a result of the Government's delay as of the time of trial. In the second case, the trial court found the Government liable for damages in the amount of \$35 million through September 30, 2004, and that the utility can bring future actions for damages incurred after that date.

Fifty-six cases remain pending in the Court of Federal Claims. Liability is probable in these cases, and in many of these cases orders have been entered establishing the Government's liability and the only outstanding issue to be litigated is ascertaining the amount of damages to be awarded. The industry is reported to estimate that damages for all utilities with which the Department has contracts ultimately will be at least \$50 billion. The Department believes that

the industry's estimate is highly inflated, and that the disposition of the eight cases that have been resolved to date suggests that the Government's ultimate liability is likely to be significantly less than that estimate.

The Department did not meet its goal of submitting a license application for the Yucca Mountain repository to the Nuclear Regulatory Commission by the end of calendar year 2004, but has recently announced that it plans to submit a license application by 2008. Based on its submitting a license application by 2008, the Department would expect to begin repository operations by 2017. The estimate of likely damages based on that operation start date is approximately \$7 billion.

Under current law, any damages or settlements will be paid out of the Treasury's Judgment Fund, which the Department will not be required to reimburse.

- **Alleged Exposures to Radioactive and/or Toxic Substances** - A number of class action and/or multiple plaintiff tort suits have been filed against the Department's current and former contractors in which the plaintiffs seek damages for alleged exposures to radioactive and/or toxic substances as a result of the historic operations of the Department's nuclear facilities. The most significant of these cases arise out of operations of the facilities at Rocky Flats, Colorado; Hanford, Washington; Paducah, Kentucky; Portsmouth (Piketon), Ohio; Mound, Ohio; Yucca Mountain, Nevada; and Brookhaven, New York. Collectively, damages sought in these cases total approximately \$110 billion.

These cases are being vigorously defended, and two cases have gone to trial. In the Rocky Flats litigation, the jury returned a substantial verdict in favor of the plaintiffs; this verdict will be appealed when a judgment is entered on the verdict. In the Hanford litigation, ten of twelve plaintiffs' claims were resolved in favor of the defendants, and relatively small judgments were entered in favor of two plaintiffs. It is expected that proceedings on the remaining Hanford plaintiffs' claims will be suspended while appeals are prosecuted from the judgments on these "bellwether" claims. Additionally, some cases have been dismissed by trial court based on legal rulings and appealed to the courts of appeal, and the final resolution of these issues has not been determined.

Based on the resolution of prior similar litigation, and the favorable results obtained to date in most of the pending cases, the Department believes that, the likelihood of liability in many of these cases is remote, and that in those cases where liability is reasonably possible, any liability that might ultimately be imposed would be significantly less than what the plaintiffs seek.

- **Uranium Enrichment Services Pricing** – This litigation concerns whether electric utilities that purchased uranium enrichment services from the Department are entitled to retroactive price reductions based on the alleged inclusion of inappropriate costs in the prices the Government charged for enrichment services. Six cases were filed involving the claims of 35 utilities. In aggregate, the cases sought approximately \$808 million. Three cases were settled in 2005 for a payment of \$54.5 million from the Judgment Fund. In April 2006, a fourth case was settled for a payment of \$27.5 million from the Judgment Fund. The Government is engaged in settlement negotiations with the plaintiffs in two remaining cases involving eleven utilities.

- **Sale and Exchange Agreement** – Southern California Edison Company (SCE) filed a complaint alleging that BPA breached the Sale and Exchange Agreement between the parties. The claim arises from BPA converting the Agreement from sale mode to exchange mode for the 2000 delivery period, pursuant to a section of the existing contract, which permits such conversion if BPA has firm surplus power insufficiency, based on the Pacific Northwest Coordination Agreement planning process. SCE does not allege that BPA did not have such an insufficiency at the time of conversion. Instead, SCE argues that BPA violated the implied covenant of good faith and fair dealing and should be equitably estopped from converting the contract to an exchange. SCE requests damages in the amount of \$186 million.

The parties stayed discovery pending mediation. The parties did not settle the case in the mediation. Thereafter, the parties agreed to stay further discovery in order to explore settlement options. A tentative settlement agreement has been reached. However, the settlement will not become final until two conditions are satisfied: (1) the Administrator approves the settlement and (2) SCE receives approval by the California Public Utility Commission. All litigation action has been stayed pending the outcome.

- **Slice True-Up Adjustment Charge** – Two cases have been filed objecting and challenging BPA's determination of the true-up adjustment charge to Slice customers. One case is currently stayed and oral arguments were conducted on the second case on November 6, 2005. The parties in the second case have negotiated a draft settlement agreement and on July 17, 2006, filed a motion for an immediate stay of 90 days. The motion was granted. In aggregate plaintiffs in the two cases are seeking up to \$164 million.

- **Purchase/Sales Commitments and Irrigation Assistance** - The PMAs have entered into various agreements for power and transmission purchases and sales that vary in length but generally do not exceed 20

years. Current rates recover the additional costs of the obligations. The sales commitments are arrangements to sell expected surplus generating capabilities at future dates and the purchase commitments are to purchase power at future dates when the PMAs forecast a shortage of generating capability and prices are favorable. These contracts maximize revenues on estimated surplus volumes.

The Northwest Power Act directs BPA to protect, mitigate and enhance fish and wildlife resources to the extent they are affected by federal hydroelectric projects on the Columbia River and its tributaries. BPA makes expenditures and incurs other costs for fish and wildlife consistent with the Northwest Power Act and the Pacific Northwest Power and Conservation Council's Columbia River Basin Fish and Wildlife Program. In addition, in the wake of certain listings of fish species under the Endangered Species Act (ESA) as threatened or endangered, BPA is financially responsible for expenditures and other costs arising from conformance with the ESA and certain biological opinions prepared by the National Oceanic and Atmospheric Administration and the Fish and Wildlife Service in furtherance of the ESA.

As directed by legislation, BPA is required to make cash distributions to Treasury for original construction costs of certain Pacific Northwest irrigation projects that have been determined to be beyond the irrigators' ability to pay. These irrigation distributions do not specifically relate to power generation and are required only if doing so does not result in an increase to power rates. Accordingly, these distributions are not considered to be regular operating costs of the power program and are treated as distributions from accumulated net revenues or expenses when paid.

The following table summarizes future purchase power/sales commitments and irrigation assistance.

Fiscal Year	Purchase Power	(in millions)	
		Sales Commitments	Irrigation Assistance
2007	\$ 93	\$ 1,707	\$ -
2008	43	1,713	3
2009	44	1,718	7
2010	77	1,798	-
2011	78	1,796	-
2012+	1	50	672
Total	\$ 336	\$ 8,782	\$ 682

17. Earmarked Funds

(in millions)

Balance Sheet as of June 30, 2006

Assets

	Nuclear Waste Fund	D&D Fund	USEC	PMA's	SPRO	Other	Total
Fund Balance with Treasury	\$ 139	\$ 49	\$ -	\$ 1,960	\$ -	\$ 55	\$ 2,203
Investments	17,549	4,379	1,420	-	-	-	23,348
Accounts Receivable	3,806	246	6	440	-	-	4,498
Inventory	-	-	-	83	-	2	85
General Property Plant and Equipment	10	(15)	-	5,895	-	20	5,910
Regulatory Assets	-	-	-	10,235	-	-	10,235
Other Assets	-	10	-	2,776	-	-	2,786
Total Assets	\$21,504	\$ 4,669	\$ 1,426	\$ 21,389	\$ -	\$ 77	\$ 49,065

Liabilities and Net Position

Accounts Payable	\$ 41	\$ 30	\$ -	\$ 133	\$ -	\$ -	\$ 204
Debt	-	-	-	23,893	-	-	23,893
Deferred Revenues and Other Credits	21,306	-	-	2,282	-	4	23,592
Environmental Cleanup and Disposal Liabilities	-	6,975	-	-	-	-	6,975
Pensions and Other Actuarial Liabilities	12	-	-	51	-	-	63
Other Liabilities	14	53	6	216	-	4	293
Contingencies and Commitments	7,000	-	-	4	-	-	7,004
Unexpended Appropriations	131	(17)	(1)	-	-	-	113
Cumulative Results of Operations	(7,000)	(2,372)	1,421	(5,190)	-	69	(13,072)

Total Liabilities and Net Position

\$21,504	\$ 4,669	\$ 1,426	\$ 21,389	\$ -	\$ 77	\$ 49,065
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Statement of Net Costs

for the Period Ended June 30, 2006

Program Costs	\$ 342	\$ 332	\$ -	\$ 2,841	\$ -	\$ 22	\$ 3,537
Less Earned Revenues	(173)	(123)	-	(3,177)	(615)	(35)	(4,123)
Net Program Costs	\$ 169	\$ 209	\$ -	\$ (336)	\$ (615)	\$ (13)	\$ (586)
Costs Not Assigned	2,003	1,860	-	-	-	-	3,863
Net Costs of Operations	\$ 2,172	\$ 2,069	\$ -	\$ (336)	\$ (615)	\$ (13)	\$ 3,277

Statement of Changes in Net Position

for the Period Ended June 30, 2006

Beginning Balance - Cumulative Results of Operations	\$ (5,000)	\$ (766)	\$ 1,378	\$ (5,364)	\$ -	\$ 40	(9,712)
Appropriations Used	230	17	-	-	-	-	247
Non Exchange Revenue	-	-	43	-	-	-	43
Transfers - In/(Out) Without Reimbursement	(47)	-	-	(162)	(613)	-	(822)
Imputed Financing	1	-	-	-	-	-	1
Other	(10)	446	-	-	-	12	448
Net Cost of Operations	(2,174)	(2,069)	-	336	615	15	(3,277)
Ending Balance Cumulative Results	\$ (7,000)	\$ (2,372)	\$ 1,421	\$ (5,190)	\$ 2	\$ 67	\$ (13,072)

Beginning Balance - Unexpended Appropriations	\$ 14	\$ -	\$ (1)	\$ -	\$ -	\$ -	\$ 13
Appropriations Received	350	-	-	-	-	2	352
Other Adjustments	(4)	-	-	-	-	-	(4)
Appropriations Used	(229)	(17)	-	-	-	(1)	(247)
Ending Balance Unexpended Appropriations	\$ 131	\$ (17)	\$ (1)	\$ -	\$ -	\$ -	\$ 113

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Nuclear Waste Fund

The Nuclear Waste Policy Act (NWPA) requires the civilian owners and generators of nuclear waste to pay their share of the full cost of the Civilian Radioactive Waste Management Program. The NWPA also established a fee for electricity generated and sold by civilian nuclear power reactors which the Department must collect and annually assess to determine its adequacy. A special NWF within the Department of Treasury of the United States was created to account for the collection fees. Fees are invested in Treasury securities and any interest earned would be available to pay costs incurred by the NWF. The NWPA requires annual financial statements to be prepared as well as reporting of financial performance measures such as the maintenance of liquid reserves and investment strategies.

Decontamination and Decommission Fund

The Energy Policy Act of 1992 established the Decontamination and Decommissioning Fund (D&D Fund) to pay for the costs of decontaminating and decommissioning of gaseous diffusion facilities through collection of revenues derived from domestic utility assessments and government appropriations. The Energy Policy Act also requires that balances in the D&D Fund be invested in Treasury securities and any interest earned would be available to pay the costs of environmental remediation. The Energy Policy Act requires annual financial statements to be prepared as well as periodic reporting of financial performance measures relating to fee receipt and investment income.

United States Enrichment Corporation

Upon privatization of the United States Enrichment Corporation (USEC) on July 28, 1998, OMB and Treasury designated the Department as successor to USEC for purposes of disposition of balances remaining in the USEC Fund. Funds in excess of those needed to liquidate USEC liabilities are invested in Treasury securities.

Power Marketing Administrations

The power marketing administrations are funded primarily from four sources. These include contract and borrowing authority, direct receipts generated from the sale of power, annual appropriations from the Department of the Interior's Reclamation Fund, and appropriations from Treasury's General Fund. In most instances, the annual appropriations from the Reclamation Fund and the General Fund are repaid to Interior and Treasury, respectively, from the receipts generated from power sales.

The power marketing administrations' earmarked funds exclude those activities financed from annual appropriations from Treasury's General Fund. The earmarked funds include only revolving and special funds financed directly from contract and borrowing authority, power sales receipts, and the annual appropriations from the Reclamation Fund.

Strategic Petroleum Reserve Oil Sales

This general fund provides for the acquisition, transportation, and injection of petroleum into the Strategic Petroleum Reserve and for its potential drawdown and distribution. This account uses offsetting collections from the sale of petroleum products in any drawdown.

18. Earned Revenues

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Naval Reactors		
Public	\$ (2)	\$ (10)
Intragovernmental	<u>-</u>	<u>(8)</u>
Total Naval Reactors	\$ (2)	\$ (18)
Energy		
Public	\$ (3,798)	\$ (4,048)
Intragovernmental	<u>(91)</u>	<u>(72)</u>
Total Energy	(3,889)	(4,120)
Environmental Management		
Public	\$ (33)	\$ 1
Intragovernmental	<u>(123)</u>	<u>(152)</u>
Total Environmental Management	(156)	(151)
Nuclear Waste		
Public	\$ (616)	\$ (762)
Intragovernmental	(725)	(924)
Less Deferred Revenue Adjustment	<u>1,169</u>	<u>1,365</u>
Total Nuclear Waste	(172)	(321)
Reimbursable Programs		
Public	\$ (455)	\$ (532)
Intragovernmental	<u>(2,018)</u>	<u>(2,719)</u>
Total Reimbursable Programs	(2,473)	(3,251)
Other Programs		
Federal Energy Regulatory Commission		
Public ^(Note 19)	\$ (166)	\$ (222)
Other		
Public ^(Note 19)	<u>(97)</u>	<u>(75)</u>
Total Other Programs	(263)	(297)
Total earned revenues	\$ (6,955)	\$ (8,158)

Energy

These revenues primarily result from the Department's power marketing activities. The Department's four power marketing administrations market electricity generated primarily by Federal hydropower projects. Preference for the sale of power is given to public bodies and cooperatives. Revenues from selling power and transmission services are used to repay Treasury annual appropriations and maintenance costs, repay the capital investments with interest, and assist capital repayment of other features and certain projects. Revenues collected by the Southeastern, Southwestern, and Western Area Power Administrations on behalf of other agencies are reported as custodial activity (see Note 25).

Due to the disruption of crude oil supplies resulting from Hurricane Katrina in August 2005, the President ordered a drawdown of the Strategic Petroleum Reserve in September 2005. As of June 30, 2006 oil sale proceeds from this drawdown totaled \$615 million (see Note 7).

Environmental Management

These revenues primarily result from assessed fees to domestic utilities to pay for the costs for decontamination and decommissioning DOE's gaseous diffusion facilities used for uranium enrichment services. Revenue from assessments against domestic utilities is recognized when such assessments are authorized by legislation. Revenue recognized includes known adjustments for transfers between utilities and other reconciliation adjustments. Increases in current and future assessments due to changes in the Consumer Price Index are recognized in each fiscal year as such changes occur. Interest earned on accumulated funds in excess of those needed to pay current program costs totaled \$123 million and \$145 million for June 30, 2006 and September 30, 2005 (unaudited), respectively.

Nuclear Waste

The Nuclear Waste Policy Act of 1982 requires the Department to assess fees against owners and generators of high-level radioactive waste and spent nuclear fuel to fund the costs associated with management and disposal activities under the Act. Fees of \$558 million and \$733 million were assessed as of June 30, 2006 and September 30, 2005 (unaudited), respectively. Interest earned on fees owed and on accumulated funds in excess of those needed to pay current program costs totaled \$781 million and \$953 million as of June 30, 2006 and September 30, 2005, (unaudited), respectively. Adjustments are made annually to defer the recognition of revenues until earned (i.e., when costs are incurred) for the Civilian Radioactive Waste Management program.

Reimbursable Programs

The Department performs work for other Federal agencies and private companies on a reimbursable work basis and on a cooperative work basis. The Department also has entered into cooperative research and development agreements to increase the transfer of Federally funded technologies to the private sector for the benefit of the U.S. economy.

The Department's policy is to establish prices for materials and services provided to public entities at the Department's full cost. In

some cases, the full cost information reported by the Department in accordance with SFFAS 4, Managerial Cost Accounting Concepts and Standards for the Federal Government, exceeds revenues. This results from implementation of provisions contained in the Economy Act of 1932, as amended; the Atomic Energy Act of 1954, as amended; and the National Defense Authorization Act for Fiscal Year 1999, which provide the Department with the authority to charge customers an amount less than the full cost of the product or service. Costs attributable to generating intragovernmental reimbursable program revenues were \$2,164 million and \$2,882 million as of June 30, 2006 and September 30, 2005 (unaudited), respectively.

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) is an independent regulatory organization within the Department that regulates essential aspects of electric, natural gas and oil pipeline, and non-Federal hydropower industries. It ensures that the rates, terms, and conditions of service for segments of the electric and natural gas and oil pipeline industries are just and reasonable; it authorizes the construction of natural gas pipeline facilities; and it ensures that hydropower licensing, administration, and safety actions are consistent with the public interest. FERC assesses most of its administrative program costs as an annual charge to each regulated entity.

19. Supporting Schedule of Net Cost for Other Programs

(in millions)

	FY 2006 Qtr. 3	FY 2005 (unaudited)
Federal Energy Regulatory Commission		
Program costs - public	\$ 166	\$ 221
Less earned revenues ^(Note 18)	(166)	(222)
	\$ -	\$ (1)
Inspector General	34	45
Environment, safety and health	100	147
Other defense activities	151	203
Other programs - public		
Program costs	\$ 3	\$ 51
Less earned revenues ^(Note 18)	(97)	(75)
	(94)	(24)
Total net cost for other programs	\$ 191	\$ 370

20. Costs Applied to Reduction of Legacy Environmental Liabilities

Costs applied to reduction of legacy environmental liabilities are current year operating expenditures for the remediation of

contaminated facilities and wastes generated from past operations. These amounts are excluded from current year program expenses since the expense was accrued in prior years when the Department recorded the environmental liabilities.

21. Costs Not Assigned

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Change in unfunded environmental liability estimates ^(Note 14)	\$ 29,674	\$ 16,519
Change in spent nuclear fuel contingency ^(Note 16)	2,000	3,080
Changes in contractor pension and PRB estimates ^(Notes 9 & 15)	506	1,594
Change in unfunded safety and health liabilities ^(Note 13)	(271)	(16)
Change in occupational illness program -		
Subtitle B	-	502
Subtitle E	-	3,631
Uranium enrichment services pricing litigation ^(Note 16)	28	55
Other	(644)	134
Total costs not assigned	\$ 31,293	\$ 25,499

Compensation Program for Occupational Illnesses

The EEOICPA authorized compensation for certain illnesses suffered by employees of the Department, its predecessor agencies, and contractors who performed work for the nuclear weapons program. Subtitle B covers illnesses associated with exposure to radiation, beryllium, or silica. In general, each eligible employee and survivors of deceased employees will receive compensation for the disability or death of that employee in the amount of \$150,000 plus the costs of medical care.

The National Defense Authorization Act of 2005 amended the EEOICPA to include Subtitle E, Contractor Employee Compensation. This amendment replaced Subtitle D of the EEOICPA, which provided assistance from the

Department in obtaining state workers' compensation benefits. The new program grants workers' compensation benefits to covered employees and their families for illness and death arising from exposure to toxic substances at a DOE facility. The amendment also makes it possible for uranium workers as defined under Section 5 of the Radiation Exposure Compensation Act to receive compensation under Subtitle E for illnesses due to toxic substance exposure at a uranium mine or mill covered under that Act.

As of September 30, 2005, the law makes payments under these programs the responsibility of the DOL. Therefore, the liability is recorded by the DOL and changes in the total liability are recognized by the Department as imputed costs and imputed financing source.

22. Nuclear Waste Fund Offsetting Receipts, Deferred

The Department defers the recognition of revenues related to the fees paid by owners and generators of spent nuclear fuel, and the interest earned on the invested balance of these funds, to the extent that the receipts exceed current year costs for developing and managing a permanent repository for spent nuclear fuel generated by civilian reactors. In addition, market value adjustments for Treasury securities

of the Nuclear Waste Fund are not recognized as revenues in the current period unless redeemed by the Department. The gross amount of receipts, interest collected, and the market value adjustments for zero coupon bond investments are reported as offsetting receipts on the Consolidated Statements of Financing. Therefore, a reconciling amount is reported for that portion of the offsetting receipts for which revenues are not recognized in the current period.

23. Statement of Budgetary Resources

(in millions)

The Statement of Budgetary Resources is presented on a combined, rather than a consolidated, basis in accordance with OMB guidance.

Adjustments to Beginning Balances of Budgetary Resources:

	FY 2006 Qtr. 3	FY 2005 (Unaudited)
Prior year unobligated balance, net - end of period		
Available, apportioned	\$ 2,588	\$ 2,538
Exempt from apportionment	24	12
Not available	1,629	1,486
Current year unobligated balance, start of period	\$ 4,241	\$ 4,036

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Unobligated Balances Not Available:

	<u>FY 2006</u> <u>Qtr. 3</u>	<u>FY 2005</u> <u>(Unaudited)</u>
United States Enrichment Corporation Fund	\$ 1,414	\$ 1,383
Reimbursable work/collections in excess of amount anticipated	7	224
Prior year deobligations in excess of apportioned amount	12	11
Expired appropriations and other amounts not apportioned	14	11
Total unobligated balances not available ^(Note 3)	\$ 1,447	\$ 1,629

Unobligated balances not available represent budgetary resources that have not been apportioned to the Department.

Details of Unpaid Obligations:

	<u>FY 2006</u> <u>Qtr. 3</u>	<u>FY 2005</u> <u>(Unaudited)</u>
Undelivered Orders	14,155	10,577
Accounts Payable	\$ 5,696	\$ 6,655
Total unpaid Obligations	\$ 19,851	\$ 17,232

Reconciliation to Appropriations Received on the Statements of Changes in Net Position:

	<u>FY 2006</u> <u>Qtr. 3</u>	<u>FY 2005</u> <u>(Unaudited)</u>
Appropriations received on the Combined Statements of Budgetary Resources	\$ 25,600	\$ 25,062
Less:		
Special and trust fund appropriated receipts	(1,006)	(1,136)
Appropriated capital owed	(83)	(43)
Appropriations made available from previous year	(257)	(101)
Anticipated appropriations - not yet realized	(4)	-
Appropriations received on the Statement of Changes in Net Position	\$ 24,250	\$ 23,782

Reconciliation to the Budget:

	<u>FY 2005</u> <u>(Unaudited)</u>			
	<u>Budgetary Resources</u>	<u>Obligations Incurred</u>	<u>Distributed Offsetting Receipts</u>	<u>Net Outlays</u>
Combined Statement of Budgetary Resources as published	\$ 36,117	\$ 31,876	\$ (3,236)	\$ 21,367
OMB adjustments made to exclude:				
United States Enrichment Corporation	(1,383)	-	-	33
Western Area Power adjustment to Interior Reclamation Fund	-	-	(39)	(39)
Expired accounts	(10)	-	-	-
Other	4	3	(11)	(14)
Budget of the United States Government	\$ 34,728	\$ 31,879	\$ (3,286)	\$ 21,347

The FY 2005 (unaudited) Combined Statement of Budgetary Resources is reconciled to the President's Budget that was published in February 2006. The President's Budget containing actual FY 2006 balances is expected to be published and available on the OMB web site, www.whitehouse.gov/omb, in February 2007.

24. Increases/(Decreases) in Unfunded Liability Estimates

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Change in unfunded environmental liability estimates ^(Note 14)	\$ 29,674	\$ 16,519
Spent nuclear fuel contingency ^(Note 16)	2,000	3,080
Change in contractor net pension and PRB estimates ^(Notes 9 and 15)	608	1,620
Change in unfunded safety and health liabilities ^(Note 13)	(271)	(17)
Change in other unfunded liabilities	595	(2)
Total increases in unfunded liabilities	\$ 32,606	\$ 21,200

25. Custodial Activities

(in millions)

	FY 2006 - Qtr. 3	FY 2005 (unaudited)
Cash collections		
Power marketing administrations - Earmarked	\$ 379	\$ 657
Petroleum Pricing Violation Escrow Fund	13	23
Federal Energy Regulatory Commission - Earmarked	18	53
Total cash collections for custodial activities	\$ 410	\$ 733

Power Marketing Administrations

The Southeastern, Southwestern, and Western Area Power Administrations are responsible for collecting and remitting to the Department of the Treasury and the Department of the Interior revenues attributable to the hydroelectric power projects owned and operated by the Department of Defense, Army Corps of Engineers; the Department of the Interior, Bureau of Reclamation; and the Department of State, International Boundary and Water Commission. These revenues are reported as custodial activities of the Department.

Petroleum Pricing Violation Escrow Fund

Custodial revenues for the Petroleum Pricing Violation Escrow Fund result primarily from interest earned from investment of the fund balance, which is invested in U.S. Treasury Bills and certificates of deposit with minority owned financial institutions, pending determination of the disposition of the funds. Funds are disbursed to individuals and groups who are able to provide proof of financial injury related to the violations of Petroleum Pricing Regulations during the 1970s and early 1980s. The Department also distributes funds to the U.S. Treasury and to the States, Possessions, and Territories of the United States.

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CONSOLIDATING SCHEDULES

U. S. Department of Energy Consolidating Schedules - Balance Sheets

As of June 30, 2006 and September 30, 2005

(\$ in millions)

	FY 2006			
	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations
ASSETS:				
Intragovernmental Assets:				
Fund Balance with Treasury	\$ 184	\$ 2,013	\$ 21,024	\$ -
Investments, Net	-	-	23,461	-
Accounts Receivable, Net	(1)	21	1,532	(859)
Regulatory Assets	-	4,480	-	-
Other Assets	-	1	42	(38)
Total Intragovernmental Assets	\$ 183	\$ 6,515	\$ 46,059	\$ (897)
Investments, Net	-	-	223	-
Accounts Receivable, Net	180	543	3,382	-
Inventory, Net:				
Strategic Petroleum and Northeast Home Heating Oil Reserve	-	-	19,156	-
Nuclear Materials	-	-	21,264	-
Other Inventory	-	87	378	-
General Property, Plant, and Equipment, Net	8	6,054	17,849	-
Regulatory Assets	-	5,822	-	-
Other Non-Intragovernmental Assets	-	2,775	1,355	-
Total Assets	\$ 371	\$ 21,796	\$ 109,666	\$ (897)
LIABILITIES:				
Intragovernmental Liabilities:				
Accounts Payable	\$ 1	\$ 3	\$ 364	\$ (239)
Debt	-	10,187	-	-
Deferred Revenues and Other Credits	-	42	715	(658)
Other Liabilities	25	49	175	-
Total Intragovernmental Liabilities	\$ 26	\$ 10,281	\$ 1,254	\$ (897)
Accounts Payable	6	136	2,391	-
Debt Held by the Public	-	6,606	-	-
Deferred Revenues and Other Credits	-	2,285	20,954	-
Environmental Cleanup and Disposal Liabilities	-	-	214,082	-
Pension and Other Actuarial Liabilities	-	55	12,339	-
Other Non-Intragovernmental Liabilities	92	253	2,927	-
Contingencies and Commitments	-	4	7,024	-
Total Liabilities	\$ 124	\$ 19,620	\$ 260,971	\$ (897)
NET POSITION:				
Unexpended Appropriations	\$ -	\$ -	\$ -	\$ -
Unexpended Appropriations- Earmarked Funds	-	-	113	-
Unexpended Appropriations- Other Funds	77	-	16,363	-
Cumulative Results of Operations	-	-	-	-
Cumulative Results of Operations - Earmarked Funds	-	(5,190)	(7,884)	-
Cumulative Results of Operations - Other Funds	170	7,366	(159,897)	-
Total Net Position	\$ 247	\$ 2,176	\$ (151,305)	\$ -
Total Liabilities and Net Position	\$ 371	\$ 21,796	\$ 109,666	\$ (897)

See independent auditor's report.

FY 2005 (unaudited)						
Consolidated	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations	Consolidated	
\$ 23,221	\$ 113	\$ 922	\$ 14,599	\$ -	\$ 15,634	
23,461	-	-	22,197	-	22,197	
693	-	18	1,621	(987)	652	
4,480	-	4,536	-	-	4,536	
5	-	1	90	(70)	21	
\$ 51,860	\$ 113	\$ 5,477	\$ 38,507	\$ (1,057)	\$ 43,040	
223	-	-	230	-	230	
4,105	20	425	3,545	-	3,990	
19,156	-	-	19,314	-	19,314	
21,264	-	-	21,285	-	21,285	
465	-	88	356	-	444	
23,911	9	6,067	17,114	-	23,190	
5,822	-	5,653	-	-	5,653	
4,130	-	2,978	1,613	-	4,591	
\$ 130,936	\$ 142	\$ 20,688	\$ 101,964	\$ (1,057)	\$ 121,737	
\$ 129	\$ 2	\$ 13	\$ 311	\$ (270)	\$ 56	
10,187	-	9,958	-	-	9,958	
99	-	57	855	(787)	125	
249	(7)	62	114	-	169	
\$ 10,664	\$ (5)	\$ 10,090	\$ 1,280	\$ (1,057)	\$ 10,308	
2,533	7	149	3,727	-	3,883	
6,606	-	6,574	-	-	6,574	
23,239	-	1,812	19,780	-	21,592	
214,082	-	-	189,710	-	189,710	
12,394	-	55	11,672	-	11,727	
3,272	120	197	3,347	-	3,664	
7,028	-	6	5,052	-	5,058	
\$ 279,818	\$ 122	\$ 18,883	\$ 234,568	\$ (1,057)	\$ 252,516	
\$ -	\$ 14	\$ -	\$ 8,964	\$ -	\$ 8,978	
113	-	-	-	-	-	
16,440	-	-	-	-	-	
-	6	1,805	(141,568)	-	(139,757)	
(13,074)	-	-	-	-	-	
(152,361)	-	-	-	-	-	
\$ (148,882)	\$ 20	\$ 1,805	\$ (132,604)	\$ -	\$ (130,779)	
\$ 130,936	\$ 142	\$ 20,688	\$ 101,964	\$ (1,057)	\$ 121,737	

See independent auditor's report.

U. S. Department of Energy

Consolidating Schedules of Net Cost

For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005

(\$ in millions)

	FY 2006			
	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations
STRATEGIC GOALS:				
Defense:				
Nuclear Weapons Stewardship:				
Total Program Costs	\$ -	\$ -	\$ 4,808	\$ -
Nuclear Nonproliferation:				
Total Program Costs	\$ -	\$ -	\$ 799	\$ -
Naval Reactors:				
Program Costs	-	-	562	-
Less: Earned Revenues	-	-	(2)	-
Net Cost of Naval Reactors	\$ -	\$ -	\$ 560	\$ -
Net Cost of Defense	\$ -	\$ -	\$ 6,167	\$ -
Energy:				
Program Costs	-	2,807	2,263	(14)
Less: Earned Revenues	-	(3,267)	(622)	-
Net Cost of Energy	\$ -	\$ (460)	\$ 1,641	\$ (14)
Science:				
Total Program Costs	\$ -	\$ -	\$ 2,517	\$ -
Environment:				
Environmental Management:				
Program Costs	-	-	4,814	(447)
Less: Earned Revenues	-	-	(156)	-
Net Cost of Environmental Management	\$ -	\$ -	\$ 4,658	\$ (447)
Nuclear Waste:				
Program Costs	-	-	346	-
Less: Earned Revenues	-	-	(172)	-
Net Cost of Nuclear Waste	\$ -	\$ -	\$ 174	\$ -
Net Cost of Environment	\$ -	\$ -	\$ 4,832	\$ (447)
Net Cost of Strategic Goals	\$ -	\$ (460)	\$ 15,157	\$ (461)
OTHER PROGRAMS:				
Reimbursable Programs:				
Program Costs	-	133	2,382	-
Less: Earned Revenues	-	(156)	(2,317)	-
Net Cost of Reimbursable Programs	\$ -	\$ (23)	\$ 65	\$ -
Other Programs:				
Program Costs	166	-	366	(78)
Less: Earned Revenues	(166)	-	(175)	78
Net Cost of Other Programs	\$ -	\$ -	\$ 191	\$ -
Costs Applied to Reduction of Legacy Environmental Liabilities	\$ -	-	(4,361)	-
Costs Not Assigned	\$ -	\$ -	\$ 31,293	\$ -
Net Cost of Operations	\$ -	\$ (483)	\$ 42,345	\$ (461)

See independent auditor's report.

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FY 2005 (unaudited)					
Consolidated	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations	Consolidated
\$ 4,808	\$ -	\$ -	\$ 6,779	\$ -	\$ 6,779
\$ 799	\$ -	\$ -	\$ 1,191	\$ -	\$ 1,191
562	-	-	810	-	810
(2)	-	-	(18)	-	(18)
\$ 560	\$ -	\$ -	\$ 792	\$ -	\$ 792
\$ 6,167	\$ -	\$ -	\$ 8,762	\$ -	\$ 8,762
5,056	-	3,620	3,050	(53)	6,617
(3,889)	-	(4,063)	(96)	39	(4,120)
\$ 1,167	\$ -	\$ (443)	\$ 2,954	\$ (14)	\$ 2,497
\$ 2,517	\$ -	\$ -	\$ 3,565	\$ -	\$ 3,565
4,367	-	-	7,178	(459)	6,719
(156)	-	-	(151)	-	(151)
\$ 4,211	\$ -	\$ -	\$ 7,027	\$ (459)	\$ 6,568
346	-	-	521	-	521
(172)	-	-	(321)	-	(321)
\$ 174	\$ -	\$ -	\$ 200	\$ -	\$ 200
\$ 4,385	\$ -	\$ -	\$ 7,227	\$ (459)	\$ 6,768
\$ 14,236	\$ -	\$ (443)	\$ 22,508	\$ (473)	\$ 21,592
2,515	-	173	3,141	-	3,314
(2,473)	-	(151)	(3,100)	-	(3,251)
\$ 42	\$ -	\$ 22	\$ 41	\$ -	\$ 63
454	221	-	546	(100)	667
(263)	(222)	-	(175)	100	(297)
\$ 191	\$ (1)	\$ -	\$ 371	\$ -	\$ 370
(4,361)	-	-	(6,637)	-	(6,637)
\$ 31,293	\$ -	\$ -	\$ 25,499	\$ -	\$ 25,499
\$ 41,401	\$ (1)	\$ (421)	\$ 41,782	\$ (473)	\$ 40,887

See independent auditor's report.

U. S. Department of Energy

Consolidating Schedules of Changes in Net Position

For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005

(\$ in millions)

	FY 2006			
	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations
CUMULATIVE RESULTS OF OPERATIONS:				
Beginning Balances	\$ 6	\$ 1,805	\$ (141,568)	\$ -
Adjustments:				
Corrections of Errors	-	-	62	-
Beginning Balances, as adjusted	\$ 6	\$ 1,805	\$ (141,506)	\$ -
Budgetary Financing Sources:				
Appropriations Used	\$ 157	\$ -	\$ 16,277	\$ -
Nonexchange Revenue	-	-	46	-
Donations and Forfeitures of Cash	-	-	13	-
Transfers - In/(Out) Without Reimbursement	-	(112)	(49)	-
Other Financing Sources (Non-Exchange):				
Donations and Forfeitures of Cash	-	-	-	-
Transfers - In/(Out) Without Reimbursement	-	-	(724)	-
Imputed Financing from Costs Absorbed by Others	7	-	60	-
Other	-	-	447	(461)
Total Financing Sources	\$ 164	\$ (112)	\$ 16,070	\$ (461)
Net Costs of Operations	-	483	(42,345)	461
Net Change	\$ 164	\$ 371	\$ (26,275)	\$ -
Total Cumulative Results of Operations	\$ 170	\$ 2,176	\$ (167,781)	\$ -
UNEXPENDED APPROPRIATIONS:				
Beginning Balances	\$ 14	\$ -	\$ 8,971	\$ -
Budgetary Financing Sources:				
Appropriations Received	220	-	24,030	-
Appropriations Transferred - In/(Out)	-	-	6	-
Other Adjustments	-	-	(254)	-
Appropriations Used	(157)	-	(16,277)	-
Total Budgetary Financing Sources	\$ 63	\$ -	\$ 7,505	\$ -
Total Unexpended Appropriations	\$ 77	\$ -	\$ 16,476	\$ -
Net Position	\$ 247	\$ 2,176	\$ (151,305)	\$ -

See independent auditor's report.

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FY 2005 (unaudited)					
Consolidated	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations	Consolidated
\$ (139,757)	\$ 3	\$ 1,106	\$ (130,296)	\$ -	\$ (129,187)
62	-	-	-	-	-
\$ (139,695)	\$ 3	\$ 1,106	\$ (130,296)	\$ -	\$ (129,187)
\$ 16,434	\$ 4	\$ 4	\$ 23,703	\$ -	\$ 23,711
46	-	-	35	-	35
13	-	-	13	-	13
(161)	-	(141)	(13)	-	(154)
-	-	340	-	-	340
(724)	(15)	47	2,100	-	2,132
67	11	-	4,268	-	4,279
(14)	2	28	404	(473)	(39)
\$ 15,661	\$ 2	\$ 278	\$ 30,510	\$ (473)	\$ 30,317
(41,401)	1	421	(41,782)	473	(40,887)
\$ (25,740)	\$ 3	\$ 699	\$ (11,272)	\$ -	\$ (10,570)
\$ (165,435)	\$ 6	\$ 1,805	\$ (141,568)	\$ -	\$ (139,757)
\$ 8,985	\$ 18	\$ 4	\$ 8,762	\$ -	\$ 8,784
24,250	-	-	23,782	-	23,782
6	-	-	312	-	312
(254)	-	-	(189)	-	(189)
(16,434)	(4)	(4)	(23,703)	-	(23,711)
\$ 7,568	\$ (4)	\$ (4)	\$ 202	\$ -	\$ 194
\$ 16,553	\$ 14	\$ -	\$ 8,964	\$ -	\$ 8,978
\$ (148,882)	\$ 20	\$ 1,805	\$ (132,604)	\$ -	\$ (130,779)

See independent auditor's report.

U. S. Department of Energy Combining Schedules of Budgetary Resources

For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005
(\$ in millions)

	FY 2006			
	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Consolidated
BUDGETARY RESOURCES				
Unobligated balance, Brought Forward, October 1	\$ 9	\$ 165	\$ 4,067	\$ 4,241
Recoveries of Prior Year Unpaid Obligations	2	6	72	80
Budget Authority:				
Appropriations	\$ 224	\$ 319	\$ 25,057	\$ 25,600
Borrowing Authority	-	437	-	437
Contract Authority	-	-	-	-
Spending Authority from Offsetting Collections:				
Earned:				
Collected	7	3,095	2,388	5,490
Change in Receivables from Federal sources	-	108	40	148
Change in Unfilled Customer Orders:				
Advances Received	-	(19)	67	48
Without Advance from Federal Sources	-	51	(301)	(250)
Anticipated For Rest of Year, Without Advance	1	1,222	1,460	2,683
Subtotal	\$ 232	\$ 5,213	\$ 28,711	\$ 34,156
Nonexpenditure Transfers, Net, Anticipated and Actual	-	(46)	6	(40)
Temporarily not Available Pursuant to Public Law	-	(2)	(264)	(266)
Permanently Not Available	-	(155)	(253)	(408)
Total Budgetary Resources	\$ 243	\$ 5,181	\$ 32,339	\$ 37,763
STATUS OF BUDGETARY RESOURCES				
Obligations Incurred:				
Direct	\$ 166	\$ 206	\$ 20,618	\$ 20,990
Exempt from Apportionment	-	1,733	71	1,804
Reimbursable	-	468	2,259	2,727
Total Obligations Incurred	\$ 166	\$ 2,407	\$ 22,948	\$ 25,521
Unobligated Balance:				
Apportioned	70	587	7,850	8,507
Exempt from Apportionment	-	2,187	101	2,288
Unobligated Balance Not Available	7	-	1,440	1,447
Total Status of Budgetary Resources	\$ 243	\$ 5,181	\$ 32,339	\$ 37,763
CHANGE IN OBLIGATED BALANCE				
Obligated Balance, Net:				
Unpaid Obligations, Brought Forward, October 1	\$ 20	\$ 2,079	\$ 15,046	\$ 17,145
Less: Uncollected Customer Payments from				
Federal Sources, Brought Forward, October 1	-	(312)	(4,375)	(4,687)
Total Unpaid Obligated Balance, Net, October 1	\$ 20	\$ 1,767	\$ 10,671	\$ 12,458
Obligations Incurred	\$ 166	\$ 2,407	\$ 22,948	\$ 25,521
Less: Gross Outlays	(156)	(2,183)	(20,442)	(22,781)
Less: Recoveries of Prior Year Unpaid Obligations, Actual	-	-	(34)	(34)
Change in Uncollected Customer Payments from Federal Sources	-	(159)	261	102
	\$ 30	\$ 1,832	\$ 13,404	\$ 15,266
Obligated Balance, Net, End of Period:				
Unpaid Obligations	\$ 30	\$ 2,304	\$ 17,517	\$ 19,851
Less: Uncollected Customer Payments from Federal Sources	-	(472)	(4,113)	(4,585)
Total, Unpaid Obligated Balance, Net, End of Period	\$ 30	\$ 1,832	\$ 13,404	\$ 15,266
NET OUTLAYS				
Gross Outlays	\$ 156	\$ 2,183	\$ 20,442	\$ 22,781
Less: Offsetting collections	(7)	(3,076)	(2,455)	(5,538)
Less: Distributed Offsetting Receipts	-	(199)	(966)	(1,165)
Net Outlays	\$ 149	\$ (1,092)	\$ 17,021	\$ 16,078

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FY 2005 (unaudited)				
Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Consolidated	
\$ 6	\$ 161	\$ 3,869	\$ 4,036	
-	-	34	34	
\$ 3	\$ 213	\$ 24,846	\$ 25,062	
-	315	-	315	
-	1,018	-	1,018	
210	3,786	3,228	7,224	
-	50	81	131	
-	17	13	30	
-	(2)	214	212	
-	-	-	-	
\$ 213	\$ 5,397	\$ 28,382	\$ 33,992	
-	(73)	242	169	
-	(1)	(265)	(266)	
-	(1,639)	(209)	(1,848)	
\$ 219	\$ 3,845	\$ 32,053	\$ 36,117	
\$ 210	\$ 226	\$ 24,443	\$ 24,879	
-	2,923	330	3,253	
-	531	3,213	3,744	
\$ 210	\$ 3,680	\$ 27,986	\$ 31,876	
9	164	2,415	2,588	
-	-	24	24	
-	1	1,628	1,629	
\$ 219	\$ 3,845	\$ 32,053	\$ 36,117	
\$ 26	\$ 2,346	\$ 14,875	\$ 17,247	
-	(264)	(4,080)	(4,344)	
\$ 26	\$ 2,082	\$ 10,795	\$ 12,903	
\$ 210	\$ 3,680	\$ 27,986	\$ 31,876	
(215)	(3,948)	(27,693)	(31,856)	
-	-	(34)	(34)	
-	(48)	(295)	(343)	
\$ 21	\$ 1,766	\$ 10,759	\$ 12,546	
\$ 20	\$ 2,079	\$ 15,133	\$ 17,232	
-	(312)	(4,375)	(4,687)	
\$ 20	\$ 1,767	\$ 10,758	\$ 12,545	
\$ 215	\$ 3,948	27,693	\$ 31,856	
(210)	(3,803)	(3,240)	(7,253)	
(18)	(739)	(2,479)	(3,236)	
\$ (13)	\$ (594)	\$ 21,974	\$ 21,367	

See independent auditor's report.

U. S. Department of Energy Consolidating Schedules of Financing

For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005

(\$ in millions)

	FY 2006			
	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations
RESOURCES USED TO FINANCE ACTIVITIES:				
Budgetary Resources Obligated:				
Obligations Incurred	\$ 166	\$ 2,407	\$ 22,948	\$ -
Less: Spending Authority from Offsetting Collections and Recoveries	(7)	(3,236)	(2,227)	-
Obligations, Net of Offsetting Collections and Recoveries	\$ 159	\$ (829)	\$ 20,721	\$ -
Less: Offsetting Receipts	-	(199)	(966)	-
Net Obligations	\$ 159	\$ (1,028)	\$ 19,755	\$ -
Other Resources:				
Donations	-	-	-	-
Imputed Financing from Costs Absorbed by Others	7	-	60	-
Transfers-In/(Out) Without Reimbursement	-	-	(724)	-
Nuclear Waste Fund Offsetting Receipts, Deferred	-	-	(152)	-
Other	-	(1)	793	(14)
Net Other Resources Used to Finance Activities	\$ 7	\$ (1)	\$ (23)	\$ (14)
Total Resources Used to Finance Activities	\$ 166	\$ (1,029)	\$ 19,732	\$ (14)
RESOURCES USED TO FINANCE ITEMS NOT PART OF THE NET COST OF OPERATIONS:				
Change in Budgetary Resources Obligated for Goods, Services and Benefits Ordered But Not Yet Provided	\$ (9)	\$ 37	\$ (3,822)	\$ -
Resources that Finance the Acquisition of Assets	-	(181)	(1,978)	-
Resources that Fund Expenses Recognized in Prior Periods	-	-	(5,155)	-
Budgetary Offsetting Collections and Receipts that Do Not Affect the Net Cost of Operations	-	(9)	430	(476)
Other Resources and Adjustments	-	125	182	29
Total Resources Used to Finance Items Not Part of the Net Cost of Operations	\$ (9)	\$ (28)	\$ (10,343)	\$ (447)
Total Resources Used to Finance the Net Cost of Operations	\$ 157	\$ (1,057)	\$ 9,389	\$ (461)
NET COST OF ITEMS THAT DO NOT REQUIRE OR GENERATE RESOURCES IN CURRENT PERIOD:				
Components Requiring or Generating Resources in Future Periods:				
Increase in Unfunded Liability Estimates	\$ 1	\$ 167	\$ 32,438	\$ -
Increase in Exchange Revenue Receivable from the Public	(166)	-	-	-
Total Components Requiring or Generating Resources in Future Periods	\$ (165)	\$ 167	\$ 32,438	\$ -
Components Not Requiring or Generating Resources:				
Depreciation and Amortization	1	329	310	-
Revaluation of Assets and Liabilities	-	-	(175)	-
Other	(1)	73	377	-
Total Components Not Requiring or Generating Resources	\$ -	\$ 402	\$ 512	\$ -
Total Net Cost of Items that Do Not Require or Generate Resources in Current Period	\$ (165)	\$ 569	\$ 32,950	\$ -
NET COST OF OPERATIONS	\$ (8)	\$ (488)	\$ 42,339	\$ (461)

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FY 2005 (unaudited)					
Consolidated	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations	Consolidated
\$ 25,521 (5,470)	\$ 210 (210)	\$ 3,680 (3,851)	\$ 27,986 (3,570)	\$ - -	\$ 31,876 (7,631)
\$ 20,051 (1,165)	\$ - (18)	\$ (171) (739)	\$ 24,416 (2,479)	\$ - -	\$ 24,245 (3,236)
\$ 18,886	\$ (18)	\$ (910)	\$ 21,937	\$ -	\$ 21,009
-	-	340	(339)	-	1
67	11	-	4,268	-	4,279
(724)	(15)	47	2,100	-	2,132
(152)	-	-	2,095	-	2,095
778	-	(495)	522	(14)	13
\$ (31)	\$ (4)	\$ (108)	\$ 8,646	\$ (14)	\$ 8,520
\$ 18,855	\$ (22)	\$ (1,018)	\$ 30,583	\$ (14)	\$ 29,529
\$ (3,794) (2,159) (5,155)	\$ 7 (4) -	\$ 55 (320) -	\$ 10 (5,426) (6,464)	\$ - - -	\$ 72 (5,750) (6,464)
(55)	18	246	393	(482)	175
336	(2)	(160)	(271)	23	(410)
\$ (10,827)	\$ 19	\$ (179)	\$ (11,758)	\$ (459)	\$ (12,377)
\$ 8,028	\$ (3)	\$ (1,197)	\$ 18,825	\$ (473)	\$ 17,152
\$ 32,606 (166)	\$ - 1	\$ 239 1	\$ 20,961 -	\$ - -	\$ 21,200 2
\$ 32,440	\$ 1	\$ 240	\$ 20,961	\$ -	\$ 21,202
640	3	539	1,276	-	1,818
(175)	-	-	(194)	-	(194)
449	(2)	(3)	914	-	909
\$ 914	\$ 1	\$ 536	\$ 1,996	\$ -	\$ 2,533
\$ 33,354	\$ 2	\$ 776	\$ 22,957	\$ -	\$ 23,735
\$ 41,382	\$ (1)	\$ (421)	\$ 41,782	\$ (473)	\$ 40,887

See independent auditor's report.

U. S. Department of Energy
Consolidating Schedules of Custodial Activities
For the Nine-Months Ended June 30, 2006 and Year Ended September 30, 2005
(\$ in millions)

	FY 2006			
	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations
SOURCES OF COLLECTIONS:				
Cash Collections:				
Interest	\$ -	\$ -	\$ 13	\$ -
Federal Energy Regulatory Commission	18	-	-	-
Power Marketing Administration Custodial Revenue	-	379	-	-
Other Custodial Revenue	-	-	-	-
Total Cash Collections	\$ 18	\$ 379	\$ 13	\$ -
Accrual Adjustment	(7)	14	-	-
Total Custodial Revenue	\$ 11	\$ 393	\$ 13	\$ -
DISPOSITION OF REVENUE:				
Transferred to Others:				
Department of the Treasury	(18)	(115)	-	-
Army Corps of Engineers	-	31	-	-
Bureau of Reclamation	-	(197)	-	-
Others	-	(80)	-	-
Decrease in Amounts to be Transferred	7	(32)	(13)	-
Net Custodial Activity	\$ -	\$ -	\$ -	\$ -

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FY 2005 (unaudited)					
Consolidated	Federal Energy Regulatory Commission	Power Marketing Administrations	All Other DOE Programs	Eliminations	Consolidated
\$ 13	\$ -	\$ -	\$ 20	\$ -	\$ 20
18	53	-	-	-	53
379	-	657	-	-	657
-	-	-	3	-	3
\$ 410	\$ 53	\$ 657	\$ 23	\$ -	\$ 733
7	(8)	(1)	(10)	-	(19)
\$ 417	\$ 45	\$ 656	\$ 13	\$ -	\$ 714
(133)	(31)	(584)	(9)	-	(624)
31	(5)	-	-	-	(5)
(197)	(5)	(74)	-	-	(79)
(80)	(3)	-	-	-	(3)
(38)	(1)	2	(4)	-	(3)
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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REQUIRED SUPPLEMENTARY STEWARDSHIP INFORMATION

(RSSI)

Research & Development (unaudited)

The Department of Energy is the single largest Federal government supporter of basic research in the physical sciences in the United States, providing more than 40 percent of total Federal funding. It oversees, and is the principal Federal funding agency of, the Nation's research programs in high energy physics, nuclear physics and fusion energy sciences. Our diverse research portfolio supports tens of thousands of principal investigators, post-doctoral students and graduate students tackling some of the most challenging scientific questions of our era.

In accordance with Statement of Federal Financial Accounting Standard (SFFAS) Number (No.)8 - Supplementary Stewardship Reporting Chapter 7 - Research and Development, the Department reports the following expenses for research and development programs that are intended to increase or maintain national economic productive capacity or yield other future benefits. Investments in research and development refer to those expenses incurred to support the search for new or refined knowledge and ideas and for the application or use of such knowledge and ideas for the development of new or improved products or processes with the expectation of maintaining or increasing national economic productive capacity or yielding other future benefits.

Supplementary Stewardship Reporting on Research and Development Costs for Fiscal Years ending September 30 (in millions)

	Direct Cost	Depreciation & Other Managerial Cost	Total Cost	Direct Cost	Depreciation & Other Managerial Cost	Total Cost
BASIC						
Nuclear Nonproliferation				\$3.2	\$0.3	\$3.5
Energy Security						
Energy Efficiency				19.9	5.1	25.0
Fossil Energy				6.0	1.7	7.7
Power Marketing Administration***				-	-	-
World-Class Scientific Research				2,808.7	735.5	3,544.2
Environmental Management				-	-	-
TOTAL BASIC				\$2,837.8	\$742.6	\$3,580.4

Direct Cost	Depreciation & Other Managerial Cost	Total Cost	Direct Cost	Depreciation & Other Managerial Cost	Total Cost	Direct Cost	Depreciation & Other Managerial Cost	Total Cost
\$13.2	\$1.0	\$14.2	\$10.1	\$1.5	\$11.6	\$8.4	\$1.3	\$9.7
30.3	4.6	34.9	24.0	3.5	27.5	30.2	5.4	35.6
7.1	0.8	7.9	10.0	1.2	11.2	5.9	1.5	7.4
3.4	-	3.4	3.3	-	3.3	3.2	-	3.2
2,581.3	583.4	3,164.7	2,448.0	594.0	3,042.0	2,598.0	506.0	3,104.0
-	-	-	-	-	-	-	-	-
\$2,635.3	\$589.8	\$3,225.1	\$2,495.4	\$600.2	\$3,095.6	\$2,645.7	\$514.2	\$3,159.9

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Supplementary Stewardship Reporting on Research and Development Costs for Fiscal Years ending September 30 (in millions)

	FY 2006			FY 2005		
	Direct Cost	Depreciation & Other Managerial Cost	Total Cost	Direct Cost	Depreciation & Other Managerial Cost	Total Cost
APPLIED						
Nuclear Weapons Stewardship				1,898.6	192.9	2,091.5
Nuclear Nonproliferation				73.2	5.5	78.7
Energy Security						
Energy Efficiency				251.4	34.7	286.1
Fossil Energy				157.4	50.3	207.7
Nuclear Energy				52.5	35.8	88.3
Electric Transmission and Distribution				55.6	4.1	59.7
Power Marketing Administration**:				9.7	-	9.7
World-Class Scientific Research				-	-	-
Environmental Management				15.6	1.2	16.8
Nuclear Waste				144.0	1.9	145.9
Other Defense Activities				-	-	-
TOTAL APPLIED				\$2,658.0	\$326.4	\$2,984.4

	FY 2006			FY 2005		
	Direct Cost	Depreciation & Other Managerial Cost	Total Cost	Direct Cost	Depreciation & Other Managerial Cost	Total Cost
DEVELOPMENT						
Nuclear Weapons Stewardship				\$467.2	\$106.8	\$574.0
Nuclear Nonproliferation				53.6	2.8	56.4
Naval Reactors				724.7	40.3	765.0
Energy Security						
Energy Efficiency				335.0	37.2	372.2
Fossil Energy				172.2	52.9	225.1
Nuclear Energy				1.2	0.8	2.0
Electric Transmission and Distribution				13.5	3.2	16.7
Power Marketing Administration**:				2.1	0.0	2.1
Environmental Management				36.4	3.6	40.0
Other Defense Activities				13.2	0.4	13.6
TOTAL DEVELOPMENT				\$1,819.1	\$248.0	\$2,067.1
TOTAL RESEARCH						
AND DEVELOPMENT				\$7,314.9	\$1,317.0	\$8,631.9

**Full R&D investments for the Power Marketing Administration's are included under direct costs of the Energy Security Goal.

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FY 2004			FY 2003			FY 2002		
Direct Cost	Depreciation & Other Managerial Cost	Total Cost	Direct Cost	Depreciation & Other Managerial Cost	Total Cost	Direct Cost	Depreciation & Other Managerial Cost	Total Cost
\$1,888.0	\$405.0	\$2,293.0	\$1,660.5	\$454.5	\$2,115.0	\$1,700.0	\$379.6	\$2,079.6
60.4	4.4	64.8	95.2	13.8	109.0	72.2	11.0	83.2
202.4	20.1	222.5	169.7	21.9	191.6	180.4	11.8	192.2
176.5	19.5	196.0	186.7	21.7	208.4	131.6	10.3	141.9
74.3	6.5	80.8	12.3	1.2	13.5	20.9	5.0	25.9
18.7	2.1	20.8	-	-	-	-	-	-
11.8	-	11.8	11.4	-	11.4	11.1	-	11.1
3.1	0.5	3.6	2.9	0.5	3.4	37.9	4.3	42.2
28.1	4.1	32.2	23.4	4.4	27.8	89.9	20.8	110.7
65.3	1.8	67.1	75.8	1.0	76.8	62.5	2.6	65.1
12.0	5.4	17.4						
\$2,540.6	\$469.4	\$3,010.0	\$2,237.9	\$519.0	\$2,756.9	\$2,306.5	\$445.4	\$2,751.9

FY2004			FY 2003			FY 2002		
Direct Cost	Depreciation & Other Managerial Cost	Total Cost	Direct Cost	Depreciation & Other Managerial Cost	Total Cost	Direct Cost	Depreciation & Other Managerial Cost	Total Cost
\$543.4	\$121.0	\$664.4	\$734.3	\$221.5	\$955.8	\$726.6	\$175.7	\$902.3
49.4	3.1	52.5	66.1	9.9	76.0	83.8	13.3	97.1
667.1	17.7	684.8	621.8	16.3	638.1	653.0	16.6	669.6
422.1	41.8	463.9	352.4	42.8	395.2	403.5	30.3	433.8
192.9	20.8	213.7	202.1	23.0	225.1	167.6	17.4	185.0
20.6	1.6	22.2	16.0	2.4	18.4	-	-	-
38.0	3.2	41.2				-	-	-
8.8	-	8.8	8.7	-	8.7	8.7	-	8.7
65.5	9.6	75.1	54.7	10.3	65.0	134.8	31.2	166.0
26.3	12.4	38.7	32.0	15.3	47.3	4.3	0.5	4.8
\$2,034.1	\$231.2	\$2,265.3	\$2,088.1	\$341.5	\$2,429.6	\$2,182.3	\$285.0	\$2,467.3
\$7,210.0	\$1,290.4	\$8,500.4	\$6,821.4	\$1,460.7	\$8,282.1	\$7,134.5	\$1,244.6	\$8,379.1

> Research and Development Activities and Significant Accomplishments by General Goal

General Goal 1: Nuclear Weapons Stewardship

– Applied & Development

Nuclear Weapons Stewardship activities: (1) provide the scientific understanding and engineering development capabilities necessary to support near-term and long-term requirements of the nuclear stockpile; (2) provide scientific understanding of the nuclear package of the weapons systems in order to sustain our ability to certify the nuclear weapons stockpile, support stockpile refurbishment and life extension and to provide capabilities and components necessary to support maintenance and refurbishment in the absence of nuclear testing; and (3) ensure the weapons complex and its facilities and infrastructure are in place to manufacture and certify the 21st century nuclear weapons stockpile.

The applied research and development program of the science campaign helps to support the nuclear weapons stewardship goal by ensuring that our nuclear weapons will continue to serve their essential deterrence role. One key goal of the National Nuclear Security Administration is to develop improved capabilities to assess the safety, reliability and performance of the nuclear package portion of weapons without further underground testing. The Dual-Axis Radiographic Hydrotest Facility (DARHT), located at Los Alamos National Laboratory, is designed to take a rapid sequence of x-ray images of a simulated nuclear weapon implosion. For FY 2006, the Department committed to achieving 60 percent cumulative progress towards conducting the first 2-axis hydrodynamics test at DARHT. The tests are on track to be completed during CY 2008.

General Goal 2: Nuclear Nonproliferation

– Basic, Applied & Development

Activities conducted provide the science and technology required for treaty monitoring and material control, as well as early detection and characterization of the proliferation of weapons of mass destruction and special nuclear materials and improving the technologies leading to major improvements in responding to chemical and biological attacks.

Under the Department's goal to have all worldwide fissile nuclear materials under controls acceptable to the United States by 2025, the nonproliferation verification research and development program will develop new technologies to improve our ability to detect and monitor nuclear explosions. During 2006, NNSA progressed a cumulative 10 percent toward demonstrating the next generation of technologies and methods to detect Uranium-235 Enrichment activities, Plutonium Reprocessing, Special Nuclear Material movement.

General Goal 3: Naval Reactors

– Development

Activities include development, demonstration, improvement, and safe operation of nuclear propulsion plants and reactor cores for application to submarines and surface ships.

The Transformational Technology Core (TTC) reactor plant design is designed to meet increasing demands on the submarine fleet, delivering a significant energy increase to future VIRGINIA-class ships with minimum impact to the overall ship design. For FY 2006, the Department committed to achieve 34 percent on the reactor plant design and core delivery. The target was met, and the program is on track for completion in FY 2015.

General Goal 4: Energy Security

– Basic, Applied & Development

The Department will improve energy security by developing technologies that foster a diverse supply of reliable, affordable and environmentally sound energy by providing for reliable delivery of energy, guarding against energy emergencies, and exploring advanced technologies that make a fundamental improvement in our mix of energy options. Discussed below are contributions from the DOE offices that contribute to the Energy Security general goal.

Energy Efficiency and Renewable Energy – Activities relate to (1) solar technologies; (2) geothermal technologies; (3) wind and hydropower technologies; (4) hydrogen and fuel cell technologies for transportation, stationary, and portable application; (5) energy conservation for the building sector, including residential building, commercial building, and retrofit technologies; (6) biomass technologies; (7) energy efficiency and renewable energy efforts in the federal sector; (8) energy conservation and energy supply efforts in the industry sector; (9) energy conservation for the transportation sector, including automotive alternative fuels and electric vehicles; and, (10) energy conservation and renewable energy for intergovernmental activities including the State Energy Program and Weatherization Program.

The Solar Program focuses on improving performance of solar energy systems and reducing development, production, and installation costs to competitive levels, thereby accelerating large-scale usage across the Nation and making a significant contribution to a clean, reliable and flexible U.S. Energy supply. The Solar program's R&D partner, the National Renewable Energy Laboratory (NREL) achieved a world record 19.5 percent efficient thin-film photovoltaic cell in June. Thin-film technology, such as NREL's copper indium gallium diselenide cell, offers significant cost savings potential over conventional solar technologies because it requires less raw material and enables higher manufacturing throughputs. Rapid progress being made in thin-film technologies is the basis for several new U.S. manufacturing facilities coming on-line this year.

The Wind Program enables wind to compete with conventional fuel throughout the Nation, creating a clean renewable energy option through technology research and development, collaborative efforts, technical support and outreach. The Wind Program's partnership with Clipper Windpower, Inc resulted in their agreements with wind energy developers to supply up to 900 wind turbines over the next five years. This collaboration is on the first U.S. wind turbine designed specifically for operation in lower wind speed (Class 4) wind resource areas. The prototype incorporates many innovations such as a distributed drivetrain, advanced blades with truncated root section airfoils, and advanced controls. The Liberty Wind Turbine will be manufactured in Cedar Rapids, IA, in a manufacturing plant that was opened in the fall of 2005. Cost effective wind turbine operation in the low wind regimes significantly increases the resource areas available for wind energy development in areas much closer to major population centers.

Fossil Energy – Activities relate to (1) improving acceptable technology for advancing power conversion systems for generating electricity and hydrogen from coal; and (2) supporting of advanced technologies for the recovery of oil and natural gas through technologies and development in drilling and offshore oil production, and characterization research.

The Department is committed to developing advanced fossil power systems capable of achieving 45-50 percent efficiency. To support this goal, the gasification technologies program is working towards the commercialization of economical and efficient sulfur removal and/or multicontaminant clean-up. For FY 2006, the Department met its goal to conduct initial pilot scale slipstream field testing of technology capable of 90% mercury removal, and began construction and testing of advanced gas separation technologies. Field testing is a critical step toward developing high performance mercury removal technology that help enable coal fired power plants to economically reduce emissions.

In FY 2006, the Gasification Technologies program moved gas separation, including ceramic membrane, hydrogen separation, CO₂ hydrate formation and ceramic membrane air separation, closer to commercialization. This work included progress in developing technologies for both oxygen and hydrogen separation. In the area of creating pure oxygen from air, full size Ion Transport Member Oxygen modules have successfully produced 95% pure oxygen in the subscale engineering prototype facility. This process provides information for further scale-up to a pre-commercial development facility of appropriate capacity. In the area of separating hydrogen, construction of 1.3 lb/day process development unit is underway; the process development unit will test hydrogen separation membrane performance on simulated syngas, which will eventual lead to capital cost reductions of \$60-\$80 per kW from the baseline of \$1200/kW for Integrated coal Gasification Combined Cycle systems and efficiency improvements of >1 efficiency points.

Also in FY 2006, Fossil Energy performed pilot-scale testing and laboratory testing of different CO₂ capture technologies. For example, the University of Texas completed a pilot plant testing campaign to evaluate a technology that is capable of at least 90% CO₂ capture. Laboratory scale evaluation of membranes developed by Los Alamos National Laboratory and Praxair were also completed. NETL researchers completed the evaluation of solid sorbents for application to both post combustion and pre-combustion CO₂ capture. The tests results for the novel tertiary showed potential for significant improvement in cost and performance. All seven Phase II Regional Partnerships were awarded and field testing of CO₂ sequestration was initiated at the Zama Oil Field in Zama, Alberta as part of the activities under the Plains CO₂ Reduction Partnership. This testing will lead to significant improvement in cost and performance, and initiate field sequestration activities within the Regional Partnerships leading to future sequestration tests.

Nuclear Energy – Accomplishments in FY 2006 include extensive research and development (R&D) into new nuclear generation technologies fostering a diversity of domestic energy supply through public-private partnerships as well as international relationships. The advancement of materials and fuels testing for the next generation of nuclear power plants (NGNP) as well as the attention paid to overhead cost and efficiency measures enabled NE to meet all of its milestones while maintaining high levels of performance.

In FY 2006, the Department met requirements within the Department's Hydrogen Posture plan through accomplishments supporting the commercialization of NGNP by 2015. Sandia National Laboratory completed the report documenting the closed Brayton cycle experiments for steady state, transient and off-normal condition, and submitted the report to Headquarters on June 30, 2006. Successful achievement of this report moves the program closer to selecting an NGNP design by FY 2011, which is necessary to the development and deployment of next-generation advanced reactors by 2025.

Within the Advanced Fuel Cycle Initiative (AFCI), the Department gained a better understanding into the necessary qualifications of a second geologic repository through testing light water reaction transmutation fuel and post irradiation,. R&D within AFCI increased the program's understanding of the nuclear fuel cycle—a knowledge that will contribute significantly to the Department's FY 2008 decision on whether to build a second geologic repository for high level nuclear waste. These achievements also add to the Global Nuclear Energy Partnership (GNEP), which seeks to enable expanded use of economical, carbon-free nuclear energy using a nuclear fuel cycle that enhances energy security while promoting non-proliferation.

Lastly, in FY 2006, the Department focused on activities achieving NRC certification of two advanced nuclear reactor designs, and the review and certification of industry baselines for combined Construction and Operating Licenses (COLs) for new nuclear power plants. Achievement

of this target moves the program closer toward enabling an industry decision to deploy new nuclear power plants by 2010.

Electricity Delivery and Energy Reliability – Research and development activities address high temperature superconductivity, transmission reliability, electric distribution transformation, and innovative energy storage. These activities contribute to the modernization and expansion of the Nation's electricity delivery system to ensure a more reliable and robust electricity supply.

Working to prevent another massive blackout like the one experienced during August 2003, the Department and its partners are implementing the "Eastern Interconnection Phasor Project." This project consists of developing and deploying a robust, widely-available, real-time monitoring and visualization system in the eastern portion of the North American power grid. This next generation system features GPS technology, secure data communications, custom visualization, and advanced controls. The data from the "phasor" measurement instruments are being fed into data archiving and analysis locations to make the project's information readily available to the utilities. The visualization and control systems will allow operators to detect disturbances and take action before problems cascade into widespread outages. During FY 2006, the Department led efforts for the installation and operation of 30 additional measurement units and 2 additional archiving and analysis locations for a cumulative total of 80 measuring units and 8 archiving and analysis locations.

General Goal 5: World-Class Scientific Research Capacity – *Basic & Applied*

Research in the areas of (1) advanced scientific computing relevant to the complex problems of the Department and providing world class supercomputer and networking facilities for scientists; (2) basic energy sciences including nuclear sciences, materials sciences, chemical sciences, engineering geosciences, energy biosciences, advanced energy projects and advanced mathematical sciences; (3) biological and environmental research needed to identify, understand, and anticipate the long term health and environmental consequences of energy production, development, and use; (4) fusion energy sciences including broad-based, fundamental research efforts aimed at producing knowledge on fusion; (5) high energy physics activities directed at understanding the nature of matter and energy; (6) nuclear physics activities directed at understanding the fundamental forces and particles of nature as manifested in nuclear matter; and, (7) small business innovative research/technology transfer support for energy related technologies that will significantly benefit US businesses, a technology transfer initiative.

Construction and commissioning of the Spallation Neutron Source (SNS), an accelerator-based neutron source that will provide the most intense pulsed neutron beams in the world for scientific research and industrial development, was completed, and the facility began

operations in late FY 2006. The SNS will become the world's leading research facility for study of the structure and dynamics of materials using neutrons. It will operate as a user facility that will enable researchers from the United States and abroad to study the science of materials that forms the basis for new technologies in telecommunications, manufacturing, transportation, information technology, biotechnology and health.

General Goal 6: Environmental Management – *Basic, Applied & Development*

Technology development activities (1) to support site closure through technical support and quick responses for highly focused science and technology projects; and (2) develop and provide the scientific and technical rationale to support development of alternative approaches and step improvements for high risk/high cost baseline estimates.

Monitored Natural Attenuation (MNA) is a promising method for treating contaminated groundwater at several legacy waste sites. In the case of chlorinated solvents, MNA often relies on native bacteria living in the subsurface to degrade hazardous contaminants to nontoxic compounds. Office of Science researchers have developed new characterization and modeling tools that can be used to determine if these natural processes are working fast enough to keep groundwater contaminants from flowing into nearby rivers and lakes. These tools were recently used at the Savannah River Site to detect and quantify rates of trichloroethene degradation by underground bacteria. Tests were performed in several wells along groundwater flow paths that extended from a contaminant site to a wetlands complex. The groundwater tracers allow scientists to study the behavior of the targeted contaminants since the tracers exhibit the same behavior as the contaminants and can be uniquely and sensitively analyzed in groundwater even in very contaminated environments. These tests, together with numerical flow and transport models demonstrated that desirable bacteria are present and active and that they are making an important contribution to the reduction of contaminant concentrations. These results can be used to reduce the cost of long-term monitoring and remediation and lead to more secure and effective site cleanup.

General Goal 7: Nuclear Waste – *Applied*

Activities are conducted on the long-term storage of high level nuclear waste at a permanent underground repository. Scientific work explores opportunities for better performance in the underground repository and improved cost savings. The work concentrates on four areas: Source Term; Materials Performance; Natural Barriers; and Advanced Technologies.

Of the studies conducted in Source Term, one project has been focusing on the interaction of spent nuclear fuel with the stainless steel component of its waste packaging. Stainless steel is made mostly of iron, and the project has determined that iron performs well in helping

to absorb the radioactive material and prevent it from leaking out of the waste packaging. This finding adds more support to the use of stainless steel in waste packaging for spent fuel.

One materials performance project has been concerned with the interaction of natural materials in the repository, such as dust and rocks, with Alloy 22, the special corrosion resistant metal that makes up the outside of the waste packages. Repository rocks could contact and form crevices on the outside of the waste package. This is a particular concern because corrosion in crevices is known to be aggressive. Studies are showing that stopping the corrosion is possible, and the likelihood and severity of crevice corrosion depends on the material that formed the crevice. Crevice corrosion tests performed at Case Western Reserve University found that crevices formed by ceramic (rock-like) material resulted in no corrosion, but crevices formed by other materials readily corroded under identical conditions. This finding can be an important factor in predicting the evolution of corrosion damage on Alloy 22 and the outside of the waste packages over long periods of time.

In the area of Natural Barriers, water flow through the repository ceiling has been studied. Water flow is important to study because water is the primary means by which nuclear waste could be broken down into radioactive particles and then transported into the surrounding environment. A new 3-D model has been created, and it proves to provide a better understanding of water flow. Preliminary results show that any water that enters the tunnels where the waste is

stored will likely travel down the tunnel walls and not drip onto the waste packages. These findings look good for the environmental conditions within the drift tunnels and the resulting performance of the waste packages.

One study in the Advanced Technology area is focusing on an alternative material to Alloy 22, the special metal that makes up the outside of the waste packages. The cost of Alloy 22 is increasing rapidly and its use could be cost prohibitive when production of waste packages commences. The study has found lots of promise in Structurally Amorphous Metal. This substance can be atomized to produce a sprayable powder, and preliminary results show that the powder can be sprayed up to a thickness of 10mm. Ongoing work is investigating its performance in corrosion and adherence to its substrate, and results have been very positive to date. The potential use of Structurally Amorphous Metal represents a significant cost savings. Its cost is less than a third of the current cost of Alloy 22.

Another Advanced Technology project is investigating an alternative technique for welding waste packages. The repository's baseline plan calls for the use of arc welding, a technique that requires 6 to 8 hours to weld one waste package. The project has narrowed its selection to one best alternative called Reduced Pressure Electron Beam welding. Reduced Pressure Electron Beam welding requires only 6 minutes to weld one waste package, which represents a large savings in both cost and time.

REQUIRED SUPPLEMENTARY INFORMATION

(RSI)

(unaudited)

This section of the report provides required supplementary information for the Department on deferred maintenance, budgetary resources by major budget account and intra-governmental balances.

Deferred Maintenance

Deferred maintenance information is a requirement under SFFAS No.6, Accounting for Property, Plant and Equipment and SFFAS No.14, Amendments to Deferred Maintenance which requires deferred maintenance to be disclosed as of the end of each fiscal year. Deferred maintenance is defined in SFFAS No.6 as “maintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed for a future period.” Estimates were developed for:

Buildings and Other Structures and Facilities	\$XXXX million
Capital Equipment	\$XX million
TOTAL	\$XXXX million

Buildings and Other Structures and Facilities

The condition assessment survey (periodic inspections) method was used in measuring a deferred maintenance estimate for buildings and other structures and facilities except for some structures and facilities where a physical barrier was present (e.g., underground pipe systems). In those cases, where a deficiency is identified during normal operations and correction of the deficiency is past due, a deferred

maintenance estimate would be applicable. Also, where appropriate, results from previous condition assessments have been adjusted to estimate current plant conditions. Deferred maintenance for excess property was reported only in situations where maintenance is needed for worker and public health and safety concerns.

The Department determines deferred maintenance and acceptable operating condition through various methods, including periodic condition assessments, physical inspections, review of work orders, manufacturer and engineering specification.

As of September 30, 2006, an amount of \$XXXX million of deferred maintenance was estimated to be required to return the facilities to acceptable operating condition. The percentage of active buildings above acceptable operating condition is estimated at XX percent.

Capital Equipment

Pursuant to the cost/benefit considerations provided in SFFAS No. 6, the Department has determined that the requirements for deferred maintenance reporting on personal property (capital equipment) is not applicable to property items with an acquisition cost of less than \$100,000, except in situations where maintenance is needed to address worker and public health and safety concerns.

Various methods were used for measuring deferred maintenance and determining acceptable operating condition for the Department's capital equipment including periodic condition assessments, physical inspections, review of work orders, manufacturer and engineering specification, and other methods, as appropriate.

An amount of \$XX million of deferred maintenance was estimated to be needed as of September 30, 2006, to return capital equipment assets to acceptable operating condition.

Budgetary Resources by Major Account as of June 30, 2006 (\$in millions)

	Fossil Energy R&D 89X0213	Science 89X0222	Energy Supply & Conservation 89-0224	Strategic Petroleum Reserve 89X0233	Weapons Activities 89-0240
BUDGETARY RESOURCES					
Unobligated Balance, Brought Forward, Oct 1	\$ 601	\$ 28	\$ 29	\$ 17	\$ 1,094
Recoveries of Prior Year Unpaid Obligations	5	2	2	2	2
Budget Authority	598	3,633	3,223	615	8,517
Nonexpenditure Transfers, Net	(11)	36	4	(43)	-
Authority Not Available	(6)	(36)	(18)	-	(64)
Total Budgetary Resources	\$ 1,187	\$ 3,663	\$ 3,240	\$ 591	\$ 9,549
STATUS OF BUDGETARY RESOURCES					
Obligations Incurred	\$ 429	\$ 3,138	\$ 1,791	\$ 1	\$ 7,913
Unobligated Balances Available	755	525	1,449	590	1,636
Unobligated Balances Not Available	3	-	-	-	-
Total Status of Budgetary Resources	\$ 1,187	\$ 3,663	\$ 3,240	\$ 591	\$ 9,549
CHANGE IN OBLIGATED BALANCE					
Obligated Balance, Brought Forward, Oct 1	\$ 482	\$ 2,193	\$ 658	\$ 40	\$ 1,490
Obligations Incurred	429	3,138	1,791	1	7,913
Less: Gross Outlays	(371)	(2,696)	(1,437)	(6)	(6,600)
Obligated Balance Transferred, Net	-	-	62	-	-
Less: Recoveries of PY Obligations, Actual	(5)	(1)	-	-	-
Change in Uncollected Customer Payments, Federal	-	-	204	-	58
Obligated Balance, Net, End of Period	\$ 535	\$ 2,634	\$ 1,278	\$ 35	\$ 2,861
NET OUTLAYS	\$ 371	\$ 2,696	\$ 815	\$ 6	\$ 4,926

	Other Defense Activities 89-0243	Defense Environmental Cleanup 89-0251	Defense Nuclear Nonproliferation 89-0309	Naval Reactors 89X0314	Bonneville Power Administration 89X4045
BUDGETARY RESOURCES					
Unobligated Balance, Brought Forward, Oct 1	\$ 56	\$ 21	\$ 576	\$ 3	\$ -
Recoveries of Prior Year Unpaid Obligations	2	2	2	2	-
Budget Authority	643	6,193	1,647	790	4,121
Nonexpenditure Transfers, Net	-	24	(6)	-	(46)
Authority Not Available	(7)	(62)	(16)	(8)	(155)
Total Budgetary Resources	\$ 694	\$ 6,178	\$ 2,203	\$ 787	\$ 3,920
STATUS OF BUDGETARY RESOURCES					
Obligations Incurred	\$ 495	\$ 5,361	\$ 1,190	\$ 755	\$ 1,734
Unobligated Balances Available	198	817	1,007	32	2,186
Unobligated Balances Not Available	1	-	6	-	-
Total Status of Budgetary Resources	\$ 694	\$ 6,178	\$ 2,203	\$ 787	\$ 3,920
CHANGE IN OBLIGATED BALANCE					
Obligated Balance, Brought Forward, Oct 1	\$ 341	\$ 2,136	\$ 1,077	\$ 295	\$ 1,579
Obligations Incurred	495	5,361	1,190	755	1,734
Less: Gross Outlays	(486)	(4,972)	(974)	(592)	(1,486)
Obligated Balance Transferred, Net	-	180	-	-	-
Change in Uncollected Customer Payments, Federal	-	-	-	-	(108)
Obligated Balance, Net, End of Period	\$ 350	\$ 2,705	\$ 1,293	\$ 458	\$ 1,719
NET OUTLAYS	\$ 485	\$ 4,972	\$ 961	\$ 592	\$ (990)

	Western Area Power Administration 89X5068	Uranium Enrichment Decontamination & Decommissioning 89X5231	United States Enrichment Corporation Fund 95X4054	All Other Appropriations	Combined Statement of Budgetary Resources
BUDGETARY RESOURCES					
Unobligated Balance, Brought Forward, Oct 1	\$ 94	\$ -	\$ 1,383	\$ 339	\$ 4,241
Recoveries of Prior Year Unpaid Obligations	2	2	-	55	80
Budget Authority	780	562	31	2,803	34,156
Nonexpenditure Transfers, Net	-	-	-	2	(40)
Authority Not Available	(2)	(6)	-	(294)	(674)
Total Budgetary Resources	\$ 874	\$ 558	\$ 1,414	\$ 2,905	\$ 37,763
STATUS OF BUDGETARY RESOURCES					
Obligations Incurred	\$ 454	\$ 458	\$ -	\$ 1,802	\$ 25,521
Unobligated Balances Available	420	100	-	1,080	10,795
Unobligated Balances Not Available	-	-	1,414	23	1,447
Total Status of Budgetary Resources	\$ 874	\$ 558	\$ 1,414	\$ 2,905	\$ 37,763
CHANGE IN OBLIGATED BALANCE					
Obligated Balance, Brought Forward, Oct 1	\$ 133	\$ 83	\$ -	\$ 1,951	\$ 12,458
Obligations Incurred	454	458	-	1,802	25,521
Less: Gross Outlays	(465)	(362)	-	(2,334)	(22,781)
Obligated Balance Transferred, Net	-	-	-	(242)	-
Less: Recoveries of PY Obligations, Actual	-	-	-	(28)	(34)
Change in Uncollected Customer Payments, Federal	(52)	-	-	-	102
Obligated Balance, Net, End of Period	\$ 70	\$ 179	\$ -	\$ 1,149	\$ 15,266
NET OUTLAYS	\$ 76	\$ 362	\$ (31)	\$ 837	\$ 16,078

Schedule of Intragovernmental Amounts as of June 30, 2006 (\$in millions)

Intragovernmental Assets:

Agency	Fund Balance with Treasury	Investments	Accounts Receivable	Regulatory Assets	Other
U.S. Treasury	\$ 23,221	\$ 23,461	\$ 132	\$ 4,480	\$ -
Defense Agencies	-	-	317	-	5
Department of Homeland Security	-	-	40	-	-
Tennessee Valley Authority	-	-	22	-	-
Health & Human Services	-	-	11	-	-
Other	-	-	171	-	-
Total intragovernmental assets	\$ 23,221	\$ 23,461	\$ 693	\$ 4,480	\$ 5

Intragovernmental Liabilities:

Agency	Accounts Payable	Debt	Deferred Revenues	Other
U.S. Treasury	\$ 3	\$ 7,429	\$ 5	\$ 45
Defense Agencies	43	-	22	110
Department of Labor	4	-	-	20
Department of the Interior	8	2,758	32	41
National Aeronautics & Space Adm	14	-	5	-
General Services Administration	11	-	3	-
Office of Personnel Management	5	-	-	11
Department of State	4	-	10	-
Other	37	-	22	22
Total intragovernmental liabilities	\$ 129	\$ 10,187	\$ 99	\$ 249

Revenues, Costs, Transfers, and Imputed Financing:

Agency	Revenues	Costs	Transfers (Out)- Custodial	Transfers In/(Out) - Other	Imputed Financing
Defense Agencies	\$ 1,222	\$ 114	\$ 31	\$ (46)	\$ -
U.S. Treasury	866	312	(133)	(721)	-
Department of Homeland Security	338	1	-	-	-
Health & Human Services	111	8	-	-	-
National Aeronautics & Space Adm	108	3	-	-	-
Nuclear Regulatory Commission	50	2	-	(46)	-
Tennessee Valley Authority	33	62	-	-	-
Department of the Interior	33	58	(197)	(65)	-
Department of Justice	26	17	-	-	-
Environmental Protection Agency	22	3	-	-	-
Department of State	16	19	-	(2)	-
General Services Administration	3	94	-	-	-
Office of Personnel Management	3	240	-	-	67
Agency for International Development	2	-	-	6	-
Other	253	129	-	(5)	-
Total	\$ 3,086	\$ 1,062	\$ (299)	\$ (879)	\$ 67

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AUDITOR'S REPORT

— MEMORANDUM FROM THE INSPECTOR GENERAL —

— INDEPENDENT AUDITOR'S REPORT —

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INSPECTOR GENERAL'S MANAGEMENT AND PERFORMANCE CHALLENGES

IMPROPER PAYMENTS INFORMATION ACT REPORTING DETAILS (UNAUDITED)

Improper Payment Outlook

As noted in the chart below, the Department's extremely low improper payment rate minimizes the Department's opportunities for future reductions in erroneous payments.

Improper Payment (IP) Reduction Outlook FY 2006 – FY 2009 (\$ in millions)						
Class of Payment/Program	FY 2006 Outlays/Payments	FY 2006 IP%	FY 2006 IP\$	FY 2007 IP%	FY 2008 IP%	FY 2009 IP%
Payroll	\$ 4,710	0.13	\$ 6.0	<.25	<.25	<.25
Travel	\$ 374	0.08	\$.3	<.25	<.25	<.25
Vendors	\$ 11,454	0.08	\$ 9.0	<.25	<.25	<.25
Other	\$ 231	0.00	\$ 0.0	<.25	<.25	<.25

Note: Federal payroll not included due to outsourcing of this function. See footnote 1 on page one of this appendix.

Recovery Auditing

P.L. 107–107, "National Defense Authorization Act for FY 2002," requires agencies that enter into contracts with a total value in excess of \$500 million in a fiscal year to carry out a cost effective program for identifying overpayments to contractors, and for recovering amounts overpaid. OMB memorandum M-03-07, "Programs to Identify and Recover Erroneous Payments," requires agencies to review their contractor payments for errors resulting in overpayments (recovery audit), take action to recover those overpayments, and report the results of these activities to OMB on an annual basis.

Recovery Auditing Statistics FY 2006 (\$ in millions)	
Contractor Payments Reviewed	\$
Contractor Overpayments Identified	\$
Overpayments Recovered	\$
Overpayments Pending Recovery	\$
Overpayments Not Recoverable	\$
Total Cost of Recovery Audit Program	\$
Departmental Costs	\$
Recovery Auditing Contractor Costs	\$

OTHER STATUTORY REPORTING

Management's Response to Audit Reports

Pursuant to the Inspector General Act Amendments of 1988 (Public Law 100-504), agency heads are to report to Congress on the status of final action taken on audit report recommendations. This report complements a report prepared by the Department's Office of Inspector General (IG) that provides information on audit reports issued during the period and on the status of management decisions made on previously issued IG audit reports.

Inspector General Audit Reports

The Department responds to audit reports by evaluating the recommendations they contain, formally responding to the IG, and implementing agreed upon corrective actions. In some instances, we are able to take corrective action immediately and in others, action plans with long-term milestones are developed and implemented. The audit resolution and follow-up process is an integral part of the Department's effort to deliver its priorities more effectively and at the least cost. Actions taken by management on audit recommendations increase both the efficiency and effectiveness of our operations and strengthen our standards of accountability.

During FY 2006, the Department took final action on 45 IG reports with the agreed upon actions including final action on three IG operational, financial, and pre-award audit reports with funds put to better use. At the end of the period, 98 reports awaited final action.

Status of Final Action on IG Audit Reports for FY 2006

The following chart provides more detail on the audit reports with open actions and the dollar value of recommendations and funds "put to better use" that were agreed to by management.

Audit Reports	Number of Reports	Agreed-Upon Funds Put to Better Use (in Millions)
Pending final action at the beginning of the period	96	\$
With actions agreed upon during the period	47	\$
Total pending final action	143	\$
Achieving final action during the period	45	\$*
Requiring final action at the end of the period	98	\$
* Reflects a single amount also included in the IG's semi-annual report.		

Inspector General's Contract Audit Reports

To begin this period, final action had not been taken on one IG contract audit report. At the end of the fiscal year, there are no contract audit reports pending final action.

Contract Audit Reports Statistical Table FY 2006

Total Number of IG Contract Audit Reports (Contract and Financial Assistance) and the dollar value of disallowed costs:

	Number of Reports	Disallowed Costs*
Contract audit reports with management decisions on which final action had not been taken at the beginning of the period	1	N/A
Contract audit reports issued on which management decisions were made during the period	-	N/A
Total contract audit reports pending final action during the period	1	N/A
Contract audit reports on which final action was taken during the period		
Recoveries	1	\$ 151,354
Reinstatements	-	\$-
Totals	-	\$-
Contract audit reports needing final action at the end of the period	-	0

* The amount of costs questioned in the audit report with which the contracting officer concurs and has disallowed as a claim against the contract. Recoveries of disallowed costs are usually obtained by offset against current claims for payment and subsequently used for payment of other eligible costs under the contract.

Government Accountability Office Audit Reports

The U.S. Government Accountability Office (GAO) audits are a major component of the Department's audit follow-up program. At the beginning of FY 2006 there were 34 GAO audit reports awaiting final action. During FY 2006, the Department received 24 additional final GAO audit reports, of which 15 required tracking of corrective actions and 9 did not because the reports did not include actions to be taken by the Department. The Department completed agreed-upon corrective actions on 9 audit reports during FY 2006, leaving 40 GAO reports awaiting final action at year-end.

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GLOSSARY OF ACRONYMS

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We welcome your comments on how we can improve the Department of Energy's Performance and Accountability Report.

Please provide comments and requests for additional copies to:

Office of Internal Review
CF-1.2 / Germantown Building
U.S. Department of Energy
1000 Independence Ave., SW
Washington, D.C. 20585-1290

lynn.harshman@hq.doe.gov

phone (301) 903-2551
fax (301) 903-2550

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